

STRIKING A BALANCE: THE ROLE OF VALUE CONGRUENCE IN SHAPING
EMPLOYEE JOB SATISFACTION AND TURNOVER INTENTIONS

BY

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Edmund C. Stazyk

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Sanjay K. Pandey*
* Chairperson

H. George Frederickson

John Nalbandian

Justin Marlowe

Jared Llorens

Alesha Doan

Date defended: June 3, 2009

The Dissertation Committee for Edmund C. Stazyk certifies
that this is the approved version of the following dissertation:

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Committee:

Sanjay K. Pandey*
* Chairperson

H. George Frederickson

John Nalbandian

Justin Marlowe

Jared Llorens

Alesha Doan

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Abstract

The past two decades have seen a rapid growth in scholarship on public service motivation. So far, findings indicate the concept bears considerable theoretical and empirical warrant. That said, several surprising inconsistencies have been identified in public service motivation research. These inconsistencies have prompted scholars to argue models relying on public service motivation as a key explanatory factor should also consider how well employees fit with their organizations—commonly referred to as value congruence.

However, there are relatively few public service motivation studies that incorporate value congruence. Moreover, these studies have viewed congruence rather narrowly, considering only a limited number of factors that may plausibly be influenced by employee fit. Consequently, this study builds upon earlier theory to examine a broader range of factors that may shape employee value congruence, including public service motivation, employee reward satisfaction, human capital investments, hierarchical authority, and goal and role ambiguity. The study further assumes high levels of value congruence will increase employee job satisfaction and reduce employee turnover intentions.

Data collected in Phase IV of the National Administrative Studies Project (NASP-IV) is used to test three research questions and 15 hypotheses. Results confirm the significance of the value congruence concept, and further suggest value congruence mediates the relationships between public service motivation, human capital investments, goal and role ambiguity, and organizational hierarchy on employee job satisfaction. Higher levels of job satisfaction are associated with diminished employee turnover intentions. Interestingly, employee reward satisfaction had no effect on value congruence, but instead directly influenced turnover intentions. Results also suggest certain organizational positions and socio-demographic factors repeatedly influence study findings. The study concludes by offering potential avenues for future research.

Chapter One

Introduction

Scholars have long recognized the varied, yet substantial, role employees play in shaping organizational performance (Barnard, 1938; McGregor, 1963; Frederickson & Hart, 1985; Wolf, 1993; Rainey & Steinbauer, 1999; Brewer & Selden, 2000; Kim, 2005; Paarlberg & Perry, 2007). Over the past decade, this recognition has become increasingly pronounced and is associated with a growing interest in the public service motivation concept (Perry & Wise, 1990; Perry, 1996; Houston, 2000, 2006; Alonso & Lewis, 2001; Paarlberg & Perry, 2007; Pandey et al., 2008). The public service motivation concept maintains individuals may be predisposed to “respond to motives grounded primarily or uniquely in public institutions and organizations” (Perry & Wise, 1990, p. 368). These motives are typically intrinsic in nature, and derive from a desire to engage in altruistic behaviors that benefit society at large and help individuals in need. The enjoyment and self-fulfillment associated with helping others becomes a motivating force driving individuals to engage in meaningful public service and to pursue public sector employment.

Wright and Pandey (2008) argue the pronounced growth in research on public service motivation is unsurprising for three reasons. First, the concept helps distinguish public administration from other fields (pp. 502-503). Second, public service motivation scholarship suggests public sector employment frequently represents a calling or vocation employees hope to fulfill (pp. 502-503). Finally, and

most importantly, the presence of public service motivation in employees provides public organizations with alternative means for structuring opportunities and incentives that might otherwise compensate for the limited availability of monetary rewards in the public sector (pp. 502-503).

Based on this latter point, public service motivation scholars have generally asserted those employees capable of meeting their unique public service motives will be increasingly inclined to complete tasks that benefit both overall organizational performance and society at large (e.g., Moynihan, 2008). Moreover, these employees will have higher levels of job satisfaction and commitment, and will be less likely to value extrinsic rewards, such as money and promotion (Bright, 2008; Wright & Pandey, 2008; Alonso & Lewis, 2001; Crewson, 1997; Frank & Lewis, 2004; Houston, 2000; Lewis & Frank, 2002; Rainey, 1982). Organizations capable of leveraging public service motivation will be better prepared to recruit, train, and socialize employees (Bright, 2008). These factors have led scholars to suggest public service motivation should be considered in selecting among potential job applicants. Yet, despite the apparent importance of the public service motivation concept, it suffers from several limitations.

Significantly, scholarship has often failed to demonstrate strong links exist between the public service motivation concept and other important employee-related factors, attitudes, behaviors, and preferences (Bright, 2008; Wright & Pandey, 2008; Steijn, 2008; Pandey & Stazyk, 2008). Along these lines, Pandey and Stazyk (2008) suggest more research is necessary to better understand antecedents and correlates of

public service motivation. Moreover, certain results have also been inconsistent. For instance, findings tend to indicate public service motivation affects both employee job satisfaction and turnover intentions positively (Bright, 2008; Naff & Crum, 1999). This suggests employees with high levels of public service motivation would work longer in a public organization than would individuals with lower public service motivation (Bright, 2008, p. 151). However, Moynihan and Pandey (2007) report a negative relationship exists between public service motivation and tenure in public organizations.

Public administration scholars have recently suggested one avenue for addressing the inconsistencies found within the public service motivation literature rests in the value congruence concept (Steijn, 2008; Bright, 2008; Wright & Pandey, 2008). For public management scholars, the value congruence concept represents an attempt to capture and describe how well individual and organizational interests align on the basis of shared goals, values, resources, and culture (Bright, 2008, pp. 151-152). Congruence takes two forms: *supplementary* and *complementary* (Bright, 2008). Simply, as Bright (2008) notes, “from a supplementary standpoint, congruence is achieved when organizations attract individuals who have similar goals and values, whereas, from a complementary standpoint, congruence is achieved when the salient unmet needs of the individuals are satisfied by the resources and tasks that are provided by organization” (pp. 151-152). In both cases, substantial evidence exists indicating that value congruence positively affects employee attitudes and behaviors—particularly job satisfaction and employee turnover intentions (Bright,

2008, pp. 151-152; Steijn, 2008; Wright & Pandey, 2008; Bretz & Judge, 1994; Kristof, 1996; Kristof-Brown et al., 2005; Vancouver & Schmitt, 1991).

Using value congruence, in the supplementary sense, this new set of studies has suggested the inconsistencies found within the public service motivation literature represent a failure to consider the fit between individuals and organizations (Bright, 2008; Steijn, 2008; Wright & Pandey, 2008). Building on the general management literature, they have proposed the relationships between public service motivation, job satisfaction, and turnover intention are ultimately mediated by value congruence (Steijn, 2008; Bright, 2008; Wright & Pandey, 2008). Initial findings suggest public service motivation remains an important concept. However, absent congruence between the individual and the organization, “PSM cannot guarantee a perfect fit between individuals and specific public organizations, nor can it guarantee favorable levels of job satisfaction and turnover intentions among public employees” (Bright, 2008, p. 163). This argument highlights the importance of achieving congruence, or compatibility, between the individual and the organization. More importantly, the results point to a need for middle-range theory capable of explaining the apparent complementary nature of employee motivations and value congruence in the public sector. In many ways, this represents a departure from traditional public service motivation theory, stressing the importance of accounting for a broader range of employee values, goals, interests, and motives. It suggests value congruence goes beyond an employee’s unique public service ethic, and that organizations may have

more opportunities, or tools, to influence job satisfaction and turnover intentions than previously thought.

This new stream of scholarship, however, models public service motivation as a form of supplementary congruence predicting value congruence. It correctly argues individuals carry their public service ethic into the organization and that fit is determined by how well this individual ethic aligns with organizational goals and values. Yet, as Bright (2008) notes, value congruence is more likely to be determined by supplementary *and* complementary sources of congruence. Again, complementary congruence accounts for actions organizations can take to meet individual needs. This study examines an expanded public sector value congruence model that incorporates both supplementary and complementary sources of congruence.

More specifically, the study explores the impact value congruence, public service motivation, human capital investments, reward satisfaction, hierarchy, and role and goal ambiguity play in shaping employee job satisfaction and turnover intentions. In doing so, this research will identify other meaningful determinants of value congruence and will also offer an expanded, more comprehensive, view of the relationship between individuals and their work environments. Given growing concerns about attracting, recruiting, and retaining employees (Rainey, 2003, 2006), public sector organizations need to leverage a wide array of assets—both supplementary and complementary—to manage organizational performance effectively. To the author's best knowledge, exploring the proposed factors concomitantly offers the first systematic attempt to examine value congruence, job

satisfaction, and turnover intentions alongside *both* supplementary and complementary sources of congruence in the public sector; as such, it would provide the first in-depth assessment examining the value and shortcomings of nurturing certain assets over others in an effort to secure value congruence.

With this broad theoretical overview in mind, more specific and formal information on the statement of the problem, research questions, significance of the study, and definition of key terms are provided next.

Statement of the Problem

Despite recent efforts by public service motivation scholars to more fully explore the association between employee job satisfaction and turnover intentions and the value congruence concept, little is known about the particular mechanisms affecting value congruence in the public sector management environment. This study contends efforts to more thoroughly capture value congruence must include a broader range of possible motivators—both intrinsic (supplementary) and extrinsic (complementary) in nature. To address this problem, three research questions are posited and tested. The next section reviews these questions.

Research Questions

Given the apparent relevance of *both* supplementary and complementary forms of congruence, the use of the value congruence concept represents a logical extension upon studies of employee motivation. This study considers the role individual propensities and organizationally-controlled resources assume in

determining job satisfaction and turnover intentions. Specifically, it addresses the following key research questions: 1) *What is the nature of the relationship between individual and organizational goals and values?* This question builds on previous public service motivation studies by exploring value congruence in terms of a broader range of potential employee motivators, including public service motivation, pay satisfaction, human capital investments, and clear organizational goals and roles. 2) *What resources can organizations leverage to increase value congruence?* This question represents the first systematic attempt to account for relevant sources of complementary congruence. Practically, progress on this question may inform organizations how, and to what extent, organizational resources can be leveraged to affect job satisfaction and employee turnover intentions. 3) *Do public employees place a higher premium on helping individuals and society than on other intrinsic and extrinsic motivators?* As noted earlier, the results of recent public service motivation value congruence studies indicate public service motivation minimally explains job satisfaction and employee turnover intentions. This question provides an opportunity to assess whether other motivators account for more variance in these earlier factors. Moreover, as the next section indicates, research on these questions is likely to make a substantial contribution to public service motivation and public administration scholarship.

Significance of the Study

This study contributes to public administration scholarship in three ways. First, it supplements the growing body of literature on public service motivation by

introducing a broader perspective of the mechanisms through which public service motivation influences employee attitudes (e.g., through adequate rewards, clear goals and roles). Second, it also adds to the literature on organizational performance. Past research indicates performance (organizational and individual), motivation, job satisfaction, and employee turnover intentions are often related (Rainey, 2003; Pinder, 1968; Petty et al., 1984; Gruneberg, 1979). However, there is currently little consensus among scholars about the role and significance of various employee motivators in shaping elements of performance. Finally, this research answers calls to develop complementary and testable middle-range theories in public administration and management (Merton, 1968; Pandey & Wright, 2006; Frederickson & Smith, 2003). In doing so, considerable attention is directed toward the conceptual and theoretical development and refinement of the value congruence concept as it applies in a public sector context.

Definition of Important Terms

Throughout this study, several terms will be used repeatedly. Consequently, before providing a summary of subsequent chapters, each of these terms warrants a short operational definition:

- *Public Service Motivation* – Notion that individuals may be predisposed to “respond to motives grounded primarily or uniquely in public institutions and organizations” (Perry & Wise, 1990, p. 368)
- *Value Congruence* – Domain of research that attempts to capture “the congruence between the characteristics of individuals (e.g., goals, skills,

values) and the characteristics of organizations (e.g., goals, values, resources, and culture).” Congruence takes on two forms—supplementary and complementary (Bright, 2008, p. 152).

- *Supplementary congruence* – “Achieved when the characteristics of individuals and organizations are similar to each other” (Bright, 2008, p. 152).
- *Complementary congruence* – “Achieved when the characteristics of the individuals and organizations add something that is missing to make each other whole” (Bright, 2008, p. 152).

Summary of Subsequent Chapters

This chapter has introduced the value congruence concept and has argued the concept’s relevance rests primarily within the context of employee motivation—more specifically, public service motivation. It has also briefly identified gaps in our current understanding of both public service motivation and value congruence. Subsequent chapters will: 1) provide a more comprehensive discussion of the theory and literature on public service motivation and value congruence (particularly as it relates to employee job satisfaction and turnover intentions), 2) outline the research methodology followed in this study, 3) present findings, and 4) conclude with a summary of several important theoretical implications and practical policy suggestions drawn from the findings. A short synopsis of each chapter is provided below.

Chapter Two presents a brief historical review of the theory and research literature informing this study (e.g., the work and early public service motivation

scholarship). Following this review, the theoretical underpinnings of the value congruence concept are set forth. The distinctions between supplementary and complementary forms of congruence are more thoroughly articulated. Several theory-specific subsections are also presented. These subsections examine the proposed relationships between the value congruence concept, public service motivation, employee reward satisfaction, human capital investments, goal and role ambiguity, job satisfaction, and employee turnover intentions. The chapter includes fifteen hypotheses intended to inform each research question and test an expanded value congruence model. It concludes with a summary of the literature and discusses the potential theoretical and practical contributions of this study.

The third chapter introduces and reviews the methodological approach utilized to address study research questions. The research design (population and sample, survey instrument, and data collection procedures) is described, and study measures are linked to broader theoretical concepts. A brief account of the data analysis techniques applied in the study is offered. The chapter concludes with a summary of the methodological approach taken.

Chapter Four presents the statistical results and theoretical implications of the analysis. The chapter begins by discussing how data were prepared. It also presents basic descriptive statistics, overall findings, and construct-specific results. The chapter ties these statistical results to individual research questions and hypotheses, as well as to the broader theoretical approach pursued throughout the study. It concludes

with a discussion of the statistical and theoretical limitations of the study, and with a summary of findings.

The final chapter summarizes key theoretical arguments and statistical findings. Conclusions are clearly stated. Chapter Five also considers the significance of findings, and outlines recommendations for future academic research and for practitioners. The chapter closes with a short review of the study.

Notes

- ¹ At best, public service motivation (when considered alongside pay satisfaction) explains roughly 25 percent of the variance in the value congruence concept (Wright & Pandey, 2008, p. 513).

Chapter Two

Review of the Literature

Over the past decade, studies on employee motivation—particularly public service motivation—have become increasingly common in public administration scholarship (e.g., Frederickson & Hart, 1985; Perry & Wise, 1990; Frederickson, 1997; Houston, 2000; Alonso & Lewis, 2001; Wright, 2001; Rainey, 2003; Paarlberg & Perry, 2007; Wright & Pandey, 2008). The rise in public sector motivation studies reflects, in part, a growing awareness that organizational performance is often tied to the performance of individual employees, and that public sector employment regularly comes with unique challenges not traditionally found in the private sector (Perry & Porter, 1982; Rainey, 2003).

For public management scholars, the existence and inherent limitations of these public sector challenges suggests certain individuals are likely to be uniquely attracted to, and motivated by, public sector employment (Perry & Wise, 1990; Rainey, 2003). This chapter reviews the prevailing literature on motivation in the public sector. It also proposes an expanded public service motivation model incorporating the value congruence concept.

The chapter begins with a brief historical review of the theory and research informing this study (e.g., the work and early public service motivation scholarship). Following this review, the theoretical underpinnings of the value congruence concept are set forth. The distinctions between supplementary and complimentary forms of congruence are articulated. Several theory-specific subsections are also presented.

These subsections examine the proposed hypothetical relationships between the value congruence concept, public service motivation, employee reward satisfaction, human capital investments, goal and role ambiguity, job satisfaction, and employee turnover intentions. The chapter concludes with a summary of the literature and discusses the potential theoretical and practical contributions of this study.

Historical Background

Employee motivation has long been considered important in public administration and public management scholarship and research (Mosher, 1968; Rainey, 2000, 2003; Perry & Wise, 1990; Perry, 1996). Much of the scholarship on public employee motivation traces to early work motivation studies. Historically, work motivation studies have considered either the particular needs, motives, and rewards affecting employee motivation or the psychological and behavioral processes underpinning individual work motivation (Rainey, 2003, p. 249). These two approaches have helped scholars clarify plausible drivers of work motivation and have taught researchers a great deal about the relationships between individuals and organizations more generally (Rainey, 2003). This section briefly reviews what scholars have learned about individuals from work motivation theories. It also explores the application of work motivation theories to the public sector, and describes the emergence of research on public service motivation and the value congruence concept.

Work Motivation Theories and the Individual

Theories of work motivation have taught business and public administration scholars much about the unique motives, values, and incentives that drive individuals to be both committed to their organizations and also high performers. Certain work motivation theories, like Adams' (1965) *equity theory*, point to the specific *needs and values* held by individuals. These theories provide insight into how individual needs and values influence employee work motivation. Yet, other theories describe how individual *goals and rewards* affect work motivation.

While there is often substantial overlap between and within these different theories, each provides distinct insights into work motivation and the individual. For instance, Vroom's (1964) *expectancy theory* suggests it is important for managers to consider workers' expectations about the relationships between performance and pay in efforts to motivate employees; conversely, *equity theory* suggests motivation is, in part, shaped by employees' perceptions of equity in rewards and contributions. In the simplest sense, these two theories suggest employees will be more motivated when they receive some balance of expected rewards *and* equitable treatment. More importantly, work motivation theories indicate employee motivation is an incredibly complex topic that requires managers to think comprehensively about the nuances of their organizations, employees, and the messages purported by each theory concurrently. However, it also appears as if work motivation has unique implications for the public sector. These implications are discussed below.

Work Motivation Theories and the Public Sector

Although past scholarship has failed to produce a single, comprehensive theory of work motivation, the notion that organizations must take steps toward motivating employees has not been lost on the leaders of public organizations and public administration scholars. If anything, the unique institutional context of public organizations has heightened interest in theories of motivation (Rainey, 2003; Perry & Wise, 1990; Perry, Mesch, & Paarlberg, 2006). This interest, in part, grows from an awareness that public sector employment is often subject to challenges rarely found in the private sphere (Perry & Porter, 1982; Rainey, 2003).

On the basis of these contextual differences, public management scholars have increasingly come to consider the nature of employee motivation in the face of unique public sector challenges. Some of the earliest efforts to describe employee motivation in the public sector trace from the scholarship on incentive structures and reward expectancies in public organizations (Rainey, 2003). These studies sought to link extrinsic rewards (e.g., pay adequacy) and organizational systems (e.g., personnel systems) to employee motivation and individual and organizational performance (Rainey, 1979, 1982, 1983, 2003; U.S. Office of Personnel Management, 1979, 1980, 1983, 2001; Rainey, Facer, & Bozeman, 1995; Pfiffner & Brook, 2000; Elling, 1986; Ban, 1995). Findings have indicated “public employees perceive weaker relationships among performance and pay, promotion, and disciplinary action than private employees do” (Rainey, 2003, p. 271; Porter & Lawler, 1968; Rainey, 1979, 1983;

Lachman, 1985, Rainey, Traut, and Blunt, 1986; Solomon, 1986; Coursey & Rainey, 1990).

Results from studies on incentive structures and reward expectancies in public organizations have inspired a rapid growth in scholarship on work motivation among public employees. Scholars have applied expectancy theories to explore whether work loads differ among public and private sector employees (Baldwin, 1990; Rainey, 2003), and have examined whether bureaucrats are open to innovation and risk-taking behaviors (Downs, 1967; Warwick, 1975; Rainey, 1983, 2003; Bozeman & Kingsley, 1998; Light, 2002). Over time, efforts have also been made to link motivation to other employee factors important in the public sector setting, including job and work satisfaction (e.g., Pinder, 1968; Locke, 1983; Gabris & Simo, 1995), job involvement (e.g., Cook, Hepworth, Wall, & Warr, 1981), organizational commitment (e.g., Balfour & Wechsler, 1996; DiIulio, 1994), professionalism (e.g., Filley, House, & Kerr, 1976; Bozeman & Loveless, 1987), role conflict and ambiguity (e.g., Kahn, Wolfe, Quinn, Snock, & Rosenthal, 1964; Rizzo, House, & Lirtzman, 1970), and goal conflict and ambiguity (e.g., Rainey, 1983; Rainey et al. 1995). While the adaptation of work motivation theories to the public sector has resulted in research that, at times, conflicts, the rapid development of this research highlights a significant trend in public management—one emphasizing the role individuals play in shaping organizational effectiveness.

Interestingly, the findings from public sector studies of work and employee motivation have increasingly led public administration and management scholars to

suggest it is likely certain individuals are uniquely attracted to public sector employment and may be primarily motivated by a desire to serve others (Mosher, 1968; Frederickson & Hart, 1985; Perry & Wise, 1990; Perry, 1996; Frederickson, 1997). This realization is associated with recent efforts to illustrate the distinct service ethic, or service motivation, held by public employees, and to capture the effects of this motivation on organizational performance through factors such as employee turnover intention and job satisfaction (Mosher, 1968; Perry & Wise, 1990; Perry, 1996; Frederickson, 1997; Bright, 2008; Steijn, 2008; Wright & Pandey, 2008; Houston, 2009). The following section traces the movement toward recognizing a unique public service ethos and motivation.

The Public Service Ethos and Public Service Motivation

Scholars have long argued public sector employment is different than private sector employment (Downs, 1967; Mosher, 1968; Sikula, 1973; Rainey, 1983; Frederickson & Hart, 1985; Perry & Wise, 1990; Crewson, 1995; Perry & Hongdeghem, 2008). This claim is due, in part, to a recognition that the institutional context of public sector employment is often particularly challenging, and that public organizations cannot typically provide the same level of financial remuneration commonly found in the private sector (Mosher, 1968; Perry & Porter, 1982; Rainey, 1982, 1983, 2003; Perry, Engbers, & Jun, 2009). Based on this realization, public administration and management scholars have increasingly come to suggest certain individuals are likely to be uniquely attracted to public sector employment and may be primarily motivated by a desire to serve others (Mosher, 1968; Rainey, 1982;

Frederickson & Hart, 1985; Perry & Wise, 1990; Crewson, 1995; Perry, 1996; Frederickson, 1997; Brewer & Selden, 1998; Houston, 2000; Perry, Mesch, & Paarlberg, 2006; Bright, 2008).

One of the earliest efforts to describe the motivational terrain of public organizations traces from Mosher's (1968, 1982) work on democracy and the public service. In that work, Mosher suggested several historical developments in the public service presented unique challenges for U.S. democracy. He argued, for example, public servants have increasingly been asked to handle complex, differentiated tasks (Mosher, 1982, p. 5). Mosher suggested this trend created a heterogeneous public service that would become progressively disconnected from traditional public service values and from the public itself. Left unchecked, this disconnect could lead to circumstances in which public servants would be less inclined to protect traditional democratic values. However, Mosher noted public employees were often motivated by a public service ethic (pp. 229-236). He suggested efforts to nurture this ethic, when combined with formal training and education, might alleviate the growing tension between the changing nature of the public service workforce and traditional democratic values (pp. 239-240).

Over time, public administration scholars increasingly recognized the need to account for Mosher's public service ethic. As support for the concept gained momentum, numerous theoretical works and empirical studies exploring the nature of this unique public service ethic—and of organizational commitment based on this service ethic—were conducted (e.g., Rainey, 1982, 2003; Frederickson & Hart, 1985;

DiIulio, 1994; Frederickson, 1997). For instance, Rainey (1983) found state managers placed greater value than private managers on opportunities to engage in meaningful public service. Several studies conducted by the U.S. Office of Personnel Management (1979, 1980, 1983) suggest public managers highly value involvement in the public service and opportunities to affect public policy (see also Rainey, 2003). Later studies have found public managers also appear to value the salary and job security typical in public organizations (Crewson, 1995; Rainey, 2003). Findings similar to these have led scholars such as Frederickson (1997; Frederickson & Hart, 1985) to conclude public employees are often guided by a spirit, or patriotism, of benevolence—a notion common in prevailing public service ethic scholarship.

Within the past twenty years, interest in exploring the precise nature of this public service ethic has become progressively more pronounced, and is currently associated with a growing concentration on theories of public service motivation (Perry & Wise, 1990; Perry, 1996; Houston, 2000, 2006, 2009; Alonso & Lewis, 2001; Paarlberg & Perry, 2007; Bright, 2008; Steijn, 2008; Wright & Pandey, 2008). Generally, the public service motivation concept maintains individuals may be predisposed to “respond to motives grounded primarily or uniquely in public institutions and organizations” (Perry & Wise, 1990, p. 368). These motives are typically intrinsic (rational, norm-based, or affective) in nature, and derive from a desire to engage in altruistic behaviors that benefit society at large and help individuals in need. The enjoyment and self-fulfillment associated with helping others

becomes a motivating force driving individuals to engage in meaningful public service and to pursue public sector employment.¹

Public service motivation scholars have typically asserted those employees capable of meeting their unique public service motives will be more inclined to complete tasks that benefit both organizational performance and society at large. Moreover, these employees will have higher levels of job satisfaction and commitment, and will be less likely to value extrinsic rewards, such as money and promotion (Bright, 2008; Wright & Pandey, 2008; Alonso & Lewis, 2001; Crewson, 1997; Frank & Lewis, 2004; Houston, 2000; Lewis & Frank, 2002; Rainey, 1982). Organizations capable of leveraging public service motivation will be better prepared to recruit, train, and socialize employees (Bright, 2008). Together, these factors have led scholars to suggest public service motivation should be considered in selecting among potential job applicants (e.g., Perry et al., 2006; Houston, 2009).

Despite the apparent importance of the public service motivation concept, recent studies suggest it suffers from certain limitations. For instance, scholarship has often failed to demonstrate strong links exist between the public service motivation concept and other important employee-related factors, attitudes, behaviors, and preferences (Bright, 2008; Wright & Pandey, 2008; Steijn, 2008; Pandey & Stazyk, 2008). In a review of the antecedents and correlates of public service motivation, Pandey and Stazyk (2008) suggest findings have been particularly limited with respect to age, gender, and reward preferences. Moreover, certain results have also been inconsistent. For instance, findings tend to indicate public service motivation

affects employee job satisfaction and turnover intentions positively (Bright, 2008; Naff & Crum, 1999). This suggests employees with high levels of public service motivation would work longer in a public organization than would individuals with lower public service motivation (Bright, 2008, p. 151). However, Moynihan and Pandey (2007) report a negative relationship exists between public service motivation and tenure in public organizations. Public administration scholars have recently suggested one avenue for addressing the inconsistencies found within the public service motivation literature rests in the value congruence concept (Steijn, 2008; Bright, 2008; Wright & Pandey, 2008). The subsequent section will examine the value congruence concept and its general relationship to public service motivation.

Value Congruence and Public Service Motivation

The value congruence concept is popular in the general management and organizational behavior research (Bright, 2008; Steijn, 2008; Bretz & Judge, 1994; Kristof, 1996; Kristof-Brown et al., 2005; Vancouver & Schmitt, 1991). It attempts to capture and describe the congruence between individuals and organizations on the basis of goals, values, resources, and culture (Bright, 2008, pp. 151-152). Congruence takes two forms: supplementary and complementary (Bright, 2008). Supplementary congruence exists when individual and organizational characteristics are similar to each other (Bright, 2008, pp. 151-152; Kristof, 1996; Muchinsky & Monahan, 1987). Complementary congruence exists when the characteristics of the individual and the organization “add something that is missing to make each other whole” (Bright, 2008, pp. 151-152; Kristof, 1996; Muchinsky & Monahan, 1987). More specifically, “from

a supplementary standpoint, congruence is achieved when organizations attract individuals who have similar goals and values, whereas, from a complementary standpoint, congruence is achieved when the salient unmet needs of the individuals are satisfied by the resources and tasks that are provided by organization” (Bright, 2008, pp. 151-152). As an example, supplementary congruence might exist when employees hope to make a difference in their organization and find they actually can; on the other hand, complementary congruence might exist when an organization provides on-the-job child care for workers with children. In both cases, substantial evidence exists indicating value congruence positively affects employee attitudes and behaviors—particularly job satisfaction and employee turnover intentions (Bright, 2008, pp. 151-152; Steijn, 2008; Wright & Pandey, 2008; Bretz & Judge, 1994; Kristof, 1996; Kristof-Brown et al., 2005; Vancouver & Schmitt, 1991).

Using value congruence in the supplementary sense, public administration scholars have recently suggested the inconsistencies found within the public service motivation literature represent a failure to consider the fit between individuals and organizations. Building on the general management literature, they have proposed the relationships between public service motivation, job satisfaction, and turnover intention are ultimately mediated by value congruence (Steijn, 2008; Bright, 2008; Wright & Pandey, 2008). Initial findings suggest public service motivation remains an important concept. However, absent congruence between the individual and the organization, “PSM cannot guarantee a perfect fit between individuals and specific public organizations, nor can it guarantee favorable levels of job satisfaction and

turnover intentions among public employees” (Bright, 2008, p. 163). These arguments highlight the importance of achieving congruence, or compatibility, between the individual and the organization. More importantly, the results point to a need for middle-range theory capable of explaining the apparent complementary nature of employee motivations and value congruence in the public sector.

In many ways, this new trend represents a departure from traditional public service motivation theory, stressing the importance of accounting for a broader range of employee values, goals, and motives. It suggests value congruence goes beyond an employee’s unique public service ethic, and that organizations may have more opportunities, or tools, to influence job satisfaction and turnover intentions than previously thought.

This new stream of scholarship, however, only examines the association between value congruence and public service motivation—a form of supplementary congruence. It correctly argues individuals carry their public service ethic into the organization and that congruence is determined by how well this individual ethic aligns with organizational goals and values. Nevertheless, as Bright (2008) notes, fit is more likely to be determined by supplementary *and* complementary sources of congruence. Again, complementary congruence accounts for actions organizations can take to meet individual needs.

The current project proposes an expanded public sector value congruence model that incorporates both supplementary and complementary sources of congruence. More specifically, it explores the impact value congruence, public

service motivation, human capital investments, reward satisfaction, hierarchy, and role and goal ambiguity play in shaping employee job satisfaction and turnover intentions. In doing so, this research will identify other meaningful determinants of value congruence and will also offer an expanded, more comprehensive view of the relationship between individuals and their work environments. Practically, given growing concerns about attracting, recruiting, and retaining employees (Rainey, 2003, 2006), public sector organizations need to leverage a wide array of assets—both supplementary and complementary—to manage organizational performance effectively. Exploring the proposed factors concomitantly offers the first systematic attempt to examine value congruence, job satisfaction, and turnover intentions alongside *both* supplementary and complementary sources of congruence in the public sector; as such, it would provide the first in-depth assessment examining the benefits and shortcomings of nurturing certain assets over others in an effort to secure value congruence.

Theoretical Model

As the previous sections indicate, scholars have increasingly argued public service motivation—although a powerful driving force in many public sector employees—cannot guarantee individual and organizational interests align (Bright, 2008; Wright & Pandey, 2008; Steijn, 2008; Houston, 2009). These scholars suggest failing to account for the congruence between individual and organizational interests helps explain conflicting findings in past public service motivation models. Recent public service motivation models incorporating the value congruence concept seem to

confirm this assertion, and have, so far, reported consistent findings in-line with past theoretical assumptions about the affects of public service motivation (Bright, 2008; Wright & Pandey, 2008; Steijn, 2008).

While recent models incorporating value congruence clearly advance public service motivation scholarship, the theoretical and empirical results of these studies have been limited. Theoretically, these studies account for a relatively narrow range of factors that may affect, or be affected by, fit between the individual and the organization. For instance, Bright's (2008) work on the topic considers only value congruence, public service motivation, job satisfaction, and employee turnover intention. Similarly, Steijn (2008) examines value congruence, public service motivation, supervisory level or position, select socio-demographic factors, and job satisfaction. Wright and Pandey (2008) provide a more theoretically robust approach in suggesting value congruence may mediate the relationship between public service motivation and pay satisfaction on employee job satisfaction. However, with the exception of Wright and Pandey, no theoretical effort is made to examine factors that may shape value congruence.

Approaching value congruence and public service motivation in this manner has also limited empirical findings. While the results of recent value congruence studies clearly indicate there is an association between public service motivation, value congruence, and job satisfaction, empirical findings suggest—at best—public service motivation (when considered concomitantly with pay satisfaction) explains roughly a quarter of the variance in the value congruence concept (Wright & Pandey,

2008, p. 513; see also Bright, 2008; Steijn, 2008). Interestingly, Wright and Pandey (2008) find over sixty percent of the variance in overall employee job satisfaction is associated with the value congruence concept and pay satisfaction. As it stands, these findings suggest other factors beyond an individual's unique public service motives may play a larger role in shaping value congruence and important organizational outcomes—a notion generally in conflict with current public service motivation theory. Consequently, efforts should be made to validate Wright and Pandey's results and to examine other factors that may influence value congruence.

With these issues in mind, the model proposed in this project attempts to address the theoretical and empirical limitations of past public service motivation/value congruence studies by providing a more holistic view of the value congruence concept. Unlike past public service motivation studies, the model assumes value congruence is shaped by a wider range of factors—both supplementary and complimentary in nature. Supplementary factors influencing the value congruence concept include public service motivation. Complementary factors affecting the value congruence concept include employee reward satisfaction, human capital investments, and clear organization goals and individual roles. These factors are assumed to shape employee job satisfaction and turnover intentions.

The model is developed with an eye toward factors that have historically been found to influence employee job satisfaction and turnover intention in the public management literature (e.g., Rainey & Steinbauer, 1999; Brewer & Selden, 2000; Rainey, 2003, 2006; Naff & Crum, 1999; Paarlberg & Perry, 2007); it is limited to

factors that might plausibly influence value congruence. Consequently, the following model is proposed:

<INSERT FIGURE 2.1>

In this model, several simple, testable assumptions are drawn. First, relying on recent public service motivation studies, the model assumes individuals will be more likely to realize their public service motives when a) the organization's service mission, values, and goals mirror those of the employee and b) tasks assigned by the organization satisfy the employee's unique public service motives. Second, although many public servants espouse a service ethic, compensation still exerts a strong influence on public sector employees—if even only for practical reasons. Third, public sector employees often have other interests, and may seek, or value, alternative forms of rewards. Human capital initiatives represent an attempt to fulfill these “alternative” needs. Finally, clear organizational goals and roles help employees interpret, or make sense, of organizational values. Absent clear organizational goals, and an understanding of one's role within the broader mission of the organization, employees are unlikely to recognize when individual and organizational values are congruent. In each of these cases, the fit between the individual and the organization is likely to influence both overall job satisfaction and intentions to leave (or stay) with the organization. The following sections present, in greater detail, the assumptions behind the model and include proposed hypotheses.

Public Service Motivation and Value Congruence

The public service motivation concept has long held individuals may be predisposed “to respond to motives grounded primarily or uniquely in public institutions and organizations” (Perry & Wise, 1990, p. 368). According to this stream of scholarship, public sector employees often receive enjoyment, satisfaction, and fulfillment from working in the public sector. As Wright and Pandey (2008) note, early efforts to test this claim argued employees place greater value on intrinsic rewards (Buchanan, 1975; Cacioppe & Mock, 1984; Crewson, 1997; Frank & Lewis, 2004; Houston, 2000; Lewis & Frank, 2002; Rainey, 1982; Wittmer, 1991) and less value on extrinsic rewards (Cacioppe & Mock, 1984; Jurkiewicz et al., 1998; Khojasteh, 1993; Kilpatrick et al., 1964; Lawler, 1971; Newstrom et al., 1976; Rainey, 1982; Rawls et al., 1975; Wittmer, 1991) than their private sector counterparts (p. 504). While the results of these studies have, at times, been mixed, public service motivation scholars have generally found considerable support for the notion that public employees place higher value on helping others and lower value on financial rewards (Pandey & Stazyk, 2008; Wright & Pandey, 2008; Boyne, 2002; Houston, 2000; Wright, 2001).

Later, more comprehensive studies recognized public sector employees may be motivated by a wider range of drivers—generally derived from affective, normative, and rational motives (Perry & Wise, 1990). Perry (1996) used these motives to identify and operationalize four dimensions of public service motivation, including attraction to policy making, public interest, compassion, and self-sacrifice.

Using these dimensions, scholars have argued organizations can leverage an individual's public service motivation to generate positive organizational outcomes, including increased employee and organizational performance (Brewer & Selden, 2000; Kim, 2005; Scott & Pandey, 2005). Because public service motivation is considered an individual characteristic, it is assumed to influence these organizational outcomes through employee-level attitudes and behaviors. However, as Wright and Pandey (2008) note, "the few studies that have investigated the relationship between public service motivation and these employee-level behaviors have reported mixed findings" (p. 505; see e.g., Alonso & Lewis, 2001; Naff & Crum, 1999).

Based on these mixed results, scholars have begun examining more fully the public service motivation concept (Wright & Pandey, 2008; Bright, 2008; Steijn, 2008). For instance, Wright and Pandey (2008) suggest one reason for inconsistent findings can be attributed to the fact that public service motivation studies "test for direct effects of public service motivation under the assumption that public organizations provide sufficient opportunities to satisfy the public service motivation of its employees" (p. 506; see also Bright, 2008). They further argue, although public employment may present an opportunity to fulfill one's public service motives, there is no assurance organizations will actually provide employees these opportunities. Along the same lines, other scholars have questioned whether individuals and organizations commonly agree on what constitutes public service and the public interest (Rainey, 1982; Brewer & Selden, 1998; Wright & Pandey, 2008).

Ultimately, these findings have caused scholars to suggest the potential benefits of public service motivation are more complicated than originally thought, and are likely to be mediated by the fit struck between the individual and the organization (Wright & Pandey, 2008; Bright, 2008; Steijn, 2008). In the case of public service motivation, “public employees may work harder, perform better, and be more satisfied with their job, but only to the extent that they see a relationship between their public service motivation goals or values and those espoused by the work of their employing organization” (Wright & Pandey, 2008, p. 507; see also Bright, 2008). In other words, public service motivation represents an individual attitude or behavior carried by the employee into the organization. However, as Bright (2008) argues, “there are many kinds of public organizations with different missions, goals, cultures, resources, and job tasks” (p. 152). Consequently, at least with respect to public service motivation, congruence between the individual and the organization is likely to be achieved in two instances. In the first, individuals predisposed to respond to motives grounded in the public service are thought to be more likely to agree with the service mission, goals, and objectives of public organizations charged with providing such services (Wright & Pandey, 2008, pp. 507-508). In the second, the more individuals agree with the organization’s mission, goals, and objectives, the more likely they will find tasks assigned by the organization satisfying and fulfilling (Wright & Pandey, 2008, pp. 507-508). If these assumptions are correct, public service motivation clearly represents a supplemental form of congruence—one in which public service motivation’s influence on employee

attitudes and behaviors (such as job satisfaction and turnover intention) is mediated by value congruence. Moreover, research demonstrates job satisfaction is often associated with turnover intentions (Rainey, 2003). Growing evidence suggests these claims are correct (Wright & Pandey, 2008; Bright, 2008; Steijn, 2008), but more work is necessary to validate these findings. To provide an additional test of the mediating effect of value congruence between public service motivation and job satisfaction and employee turnover intentions, the following are hypothesized:

Hypothesis 1: Public service motivation will have an indirect, positive effect on job satisfaction through its influence on value congruence.

Hypothesis 2: Public service motivation will have an indirect, positive effect on employee turnover intentions through its influence on value congruence.

Hypothesis 3: The effects of public service motivation and value congruence on job satisfaction will indirectly influence employee turnover intentions.

Reward Satisfaction

Studies examining employee reward satisfaction are common in public administration scholarship. These studies have often sought to sort out the “most important” needs, values, and incentives held by employees (Rainey, 2003). Results generally indicate reward preferences are complex, and frequently vary on the basis of factors such as age, occupation, and organizational level (Rainey, 2003). As mentioned in previous sections, research also suggests government employees are

less likely than their private sector counterparts to place value on monetary incentives (Houston, 2000; Jurkiewicz et al., 1998; Karl & Sutton, 1998; Khojasteh, 1993; Kilpatrick et al., 1964; Porter & Lawler, 1968; Rawls et al., 1975; Rainey, 1983; Siegel, 1983; Wittmer, 1991). Instead, public sector employees—particularly those in higher levels of the organization—appear to be attracted to the challenge of public sector work and a desire to perform public service (Rainey, 2003; Hartman & Weber, 1980). Nevertheless, compensation and other extrinsic rewards still exert a strong influence on the motivation of public sector employees (Rainey, 1982, 1983, 2003, 2006).

Research suggests compensation serves several important roles for public employees. First, the security and benefits associated with public sector employment often operate as an important incentive in the attraction and retention of employees (Houston, 2000; Jurkiewicz et al., 1998; Karl & Sutton, 1998; Kilpatrick et al., 1964; Crewson, 1997; Gabris & Simo, 1995). Second, pay frequently has symbolic meaning, ultimately denoting an employee's skill level and performance (Lawler, 1990; Rainey, 2003). In this case, there is evidence "some public managers attach higher importance to increases in pay than do private sector managers" (Rainey, 2003, p. 240). Third, and along somewhat related lines, research also suggests employees who believe they are unable to influence their organization may value pay over other motivations (Schuster, 1974). Fourth, some evidence suggests public sector employees value status, recognition, and power more than their private sector counterparts (Rawls et al., 1975; Guyot, 1960; Khojasteh, 1993). Other evidence

highlights the importance of helping society (Crewson, 1997; Gabris & Simo, 1995). Absent an opportunity to fulfill these various needs, it appears employees may value compensation more highly.

Given compensation is a resource provided by the organization, extrinsic reward satisfaction clearly represents an example of complementary congruence. Complementary congruence exists in situations where “the salient unmet needs” of an employee are satisfied by resources provided by an organization. In this case, the resource provided to address unmet needs can be found in compensation (Bright, 2008). Moreover, as recent value congruence scholarship in public administration has established, the public service motivation concept fails to account for the majority of explained variance in current models (Bright, 2008; Steijn, 2008). This suggests public sector value congruence theories and models must consider a broader range of factors. On this basis, the following hypotheses seem appropriate:

Hypothesis 4: Employee reward satisfaction will have an indirect, positive effect on employee job satisfaction through their influence on value congruence.

Hypothesis 5: Employee reward satisfaction will have an indirect, positive effect on employee turnover intentions through their influence on value congruence.

Hypothesis 6: The effects of employee reward satisfaction and value congruence on job satisfaction will indirectly influence employee turnover intentions.

Human Capital

In recent years, proponents of the human capital concept have suggested employees are the most important assets held by public organizations (Rainey, 2003, 2006). These proponents have further argued the knowledge, skills, and abilities of employees play a crucial role in organizational success, and that, in the face of a growing human capital crisis at all levels of government, “organizations need to strategize, plan, and invest in making sure that this human-capital emphasis infuses the organization’s operations and its long-term development” (Rainey, 2003, p. 412; see also Rainey, 2006; Liebowitz, 2004; Voinovich, 2000; National Academy of Public Administration, 2005a, 2005b). To meet these ends, proponents of the human capital movement in the federal government have identified four so-called “human capital cornerstones” (U.S. General Accounting Office, 2002a, 2002b). These cornerstones include:

1. *Leadership*: to establish a commitment to human capital management and to establish the role of the human capital function
2. *Strategic human capital planning*: to achieve integration and alignment of the human capital function with the organization’s strategy, mission, and operations, and to produce data-driven human capital decisions

3. *Acquiring, developing, and retaining talent*: making targeted investments in people to ensure that human capital approaches are tailored to meet organizational needs
4. *Results-oriented organizational culture*: involving empowerment and inclusiveness to ensure that unit and individual performance are linked to organizational goals (Rainey, 2003, p. 413).

Significantly, the assumptions behind the cornerstones, along with certain elements of federal strategic human capital plans, have been adopted by state and local governments (Rainey, 2003, 2006; Jacobson et al., 2002).

At their heart, human capital investments mesh well with the notion of value congruence along several fronts. First, these initiatives, as indicated above, entail “making targeted investments” in employees that fill organizational needs. However, since the genesis of the human capital concept, scholars have noted such investments frequently provide substantial benefits to the employee (Schultz, 1961; Becker, 1975). Traditionally, these benefits arose from educational opportunities or on-the-job training. More recently, public and private organizations have made broader investments in the form of increased job flexibilities. For example, the FBI and NASA provide teaching sabbaticals to employees as one form of investment (National Academy of Public Administration 2005a, 2005b). In this case, as with the discussion on employee reward satisfaction, it is likely the organization is attracting, recruiting, and retaining employees by meeting a wider range of employee needs

otherwise not necessarily held by the organization. However, human capital investments serve other purposes as well.

As mentioned earlier, employees may place greater value on extrinsic rewards when they are incapable of fulfilling their public service motivation, influencing their organization, or meeting other perceived needs. Human capital initiatives are partly an attempt to address these issues. As the cornerstones indicate, human capital investments are also meant to (1) empower employees and (2) integrate and align employees with the organization's strategy, mission, and operations (Rainey, 2003, p. 413). In both cases, the needs of employees are, at least hypothetically, brought in-line with the organization. For these reasons, the following hypotheses are offered:

Hypothesis 7: The value an organization places on human capital investments will have an indirect, positive effect on employee job satisfaction through their influence on value congruence.

Hypothesis 8: The value an organization places on human capital investments will have an indirect, positive effect on employee turnover intentions through their influence on value congruence.

Hypothesis 9: The effects of human capital investments and value congruence on job satisfaction will indirectly influence employee turnover intentions.

Goal and Role Ambiguity

Public management scholarship has increasingly acknowledged the importance organizational goal and role clarity play in shaping the performance of public organizations (Rainey, 1989, 2003; Chun & Rainey, 2004; Pandey & Wright, 2006; Pandey & Rainey, 2006). This trend reflects an attempt to account for distinctive elements of management in the public sector, and frequently maintains public managers are subject to goals that are more numerous, vague, and conflicting than those found in the private sector (Rainey, 1989, 2003).

Public administration scholars find the multiplicity, vagueness, and conflicting nature of organizational goals in the public sector particularly troublesome insofar as clear organizational goals help define and provide standards for employee behaviors. This notion derives from Locke's theory of goal setting and a substantial body of subsequent scholarship indicating individuals perform better on tasks, are more likely to react positively to job goals, will be more motivated, and will have a greater sense of self-efficacy when goals are clear and easily understandable (Locke & Latham, 2002; Bandura, 1997; Bandura & Locke, 2003). Other research suggests clear organizational goals enhance the ability of employees to comprehend organizational roles, thereby reducing employee stress and other undesirable outcomes (Pandey & Rainey, 2006).

On this basis, public administration scholars have suggested organizations will rely on structural strategies to control goal ambiguity and increase role clarity. For instance, Chun and Rainey (2004) and Pandey and Wright (2006) have demonstrated

the level of centralization in an organization increases as the degree of organizational goal ambiguity increases. Other research suggests the level of hierarchical authority within an organization moderates the association between goal ambiguity and organizational performance (Stazyk & Goerdel, under review). In this case, public organizations with higher levels of hierarchical authority appear to out-perform organizations with lower levels despite varying degrees of goal ambiguity.

Research has also shown employee role ambiguity is likely to increase in the face of efforts to stave-off goal ambiguity through centralizing efforts (House & Rizzo, 1972; Morris et al., 1979; Nicholson & Goh, 1983). In this case, centralization is frequently thought to add another layer of uncertainty likely to define performance in inconsistent ways (Ramaswami et al., 1993) or to force conformity to specified policies and procedures (Rainey, 1983). In the face of increased role ambiguity, employees are prone to have higher stress levels due to perceived conflicts between organizational demands or expectations (Rizzo et al., 1970; House & Rizzo, 1972; Rainey, 2003). These employees are also more likely to believe their organizational roles conflict with their own personal values, standards, time, resources, and capabilities (Rizzo et al., 1970; House & Rizzo, 1972; Rainey, 2003). Given this factor, the ability of an organization to provide clear goal and role guidance is apt to influence job satisfaction and turnover intentions. In this instance, value congruence mediates the association between role clarity and job satisfaction and turnover intentions to the extent that organizational tasks are clear—ultimately providing a

source of complementary congruence. Consequently, the following hypotheses are proposed:

Hypothesis 10: Goal ambiguity will have a direct, negative effect on value congruence, and an indirect, negative effect on employee job satisfaction.

Hypothesis 11: Goal ambiguity will have a direct, negative effect on value congruence, and an indirect, negative effect on employee turnover intentions.

Hypothesis 12: Hierarchical authority will mediate the relationship between goal ambiguity and role ambiguity.

Hypothesis 13: Role ambiguity will have a direct negative effect on value congruence, and an indirect, negative effect on employee job satisfaction.

Hypothesis 14: Role ambiguity will have a direct negative effect on value congruence, and an indirect, negative effect on employee turnover intentions.

Hypothesis 15: The effects of goal ambiguity, hierarchy, role ambiguity, and value congruence on job satisfaction will indirectly influence employee turnover intentions.

Model Controls

Much of the public administration scholarship suggests public service motivation is likely to be influenced by a variety of socio-demographic and organizational factors (Perry, 1996; Perry et al., 2006; DeHart-Davis, Marlowe, &

Pandey, 2006; Pandey & Stazyk, 2008). In many cases, these factors also appear to influence other elements included in the proposed model, such as pay satisfaction (Rainey, 1982; 1983; 2003). Moreover, recent models including both public service motivation and value congruence have reported supervisory level, race and ethnicity, age, education, and sex influence job satisfaction and turnover intention (Bright, 2008; Steijn, 2008; Wright & Pandey, 2008). For these reasons, the model proposed in this study includes race and ethnicity, age, education, and sex as controls.

Furthermore, in-line with recent calls to examine whether public service motivation varies based on organizational position or role (Pandey & Stazyk, 2008; Houston, 2009), the model controls for the job function of employees (e.g., finance directors, parks and recreation directors). While no specific hypotheses are set forth here, past research provides strong reason to suspect these controls are both theoretically and empirically associated with model components.

Summary

This chapter begins with a brief historical review of the theory and research literature on work motivation. It argues work motivation theories have been incredibly influential in business and public administration studies, ultimately informing scholars on important elements of employee motivation. However, the chapter also suggests efforts to capture the institutional context of the public sector have led to a growing awareness among scholars that public employees are often guided by a service ethic uniquely found in public sector employment. Efforts to describe the precise nature of this service ethic have become increasingly

pronounced, and are associated with a growing body of scholarship on public service motivation. Recent studies suggest the public service motivation concept bears considerable theoretical and empirical warrant, but future studies must more fully consider fit between the individual and the organization.

Based on this review, the theoretical underpinnings of an expanded public service motivation/value congruence model are set forth. The distinctions between supplementary and complimentary forms of congruence are more thoroughly articulated. Several theory-specific subsections are also presented. These subsections examine the proposed relationships between the value congruence concept, public service motivation, employee reward satisfaction, human capital investments, goal and role ambiguity, job satisfaction, and employee turnover intentions. The chapter includes fifteen hypotheses intended to inform each research question and test the value congruence model.

Notes

- ¹ Several scholars, including Perry, have recognized public service can be conducted outside the public sector. That said, most of the scholarship considers the role of public service motivation in public sector employees. This trend is followed in the current study.

Chapter Three

Methodology

The previous chapter explores the theoretical and conceptual moorings of this study, ultimately suggesting a broader interpretation of the value congruence concept is necessary to understand how employee perceptions affect job satisfaction and turnover intentions. Chapter Three reviews the research methodology utilized to address study research questions and hypotheses. It begins by briefly presenting the research methodology and study design employed and followed. Next, a review of measures and model controls selected to represent and test theoretical concepts is conducted. Following this, a brief discussion of the data analysis approach taken in this study is offered. The chapter concludes with a brief summary.

Research Methodology

This study draws on data gathered in Phase IV of the National Administrative Studies Project (NASP-IV). The NASP-IV dataset provides significant opportunity to examine employee perceptions and study measures across a sample of local government respondents. Because NASP-IV has a relatively large number of respondents, survey findings are likely to be more accurate, reliable, and generalizable—a significant benefit of the current study (Wooldridge, 2006). Moreover, since the NASP-IV data source has not yet been used in public service motivation value congruence studies, it offers an opportunity to validate and

triangulate findings across previous studies (e.g., Bright, 2008; Steijn, 2008; Wright & Pandey, 2008).

Study Design

The data for this study were collected in Phase IV of the National Administrative Studies Project. NASP-IV is a multi-method study, a key part of which was a survey administered to a nationwide sample. The theoretical population of interest for NASP-IV was comprised of senior managers (both general and functional) in U.S. local government jurisdictions with populations at, or above, 50,000 residents. General managers included city managers and assistant/deputy city managers. Functional managers included several key city departments, including finance/budgeting, public works, personnel/HR, economic development, parks and recreation, planning, and community development.

The study and sample design of the NASP-IV project was aided by the *International City/County Management Association* (ICMA). ICMA is widely regarded as the authoritative source of information on U.S. local government jurisdictions and professionals serving in these jurisdictions. Based on the study criteria, ICMA compiled a list with contact details of potential respondents (for policy reasons, ICMA was not able to provide e-mail addresses). The NASP-IV team used the initial list provided by ICMA and augmented it in a number of ways to finalize the sample. Relying on publicly available information, steps taken to finalize the sample included:

1. Verifying the accuracy of the information;

2. Augmenting the list where the ICMA list did not have complete information;
3. Correcting the list to ensure that only individuals who met study criteria were on the list; and
4. Compiling working e-mail addresses for the respondents in the sample.

These efforts resulted in 3,316 respondents in the study sample. The study protocol was reviewed and approved by the Institutional Review Board at the University of Kansas. Each respondent in the study sample received an initial letter through U.S. mail which introduced the study and provided details on how to participate. Potential respondents were directed to the study website and provided a secure study participation code. On visiting the study website, the respondent was provided an informational note about their rights as a potential study participant. This note highlighted that participation was voluntary and that, except for respondents' time, there were no foreseeable risks. The note also indicated the study team would take all necessary steps to protect the confidentiality of respondents, including conducting analyses and reporting results at the aggregate level only. After this initial letter, multiple methods were used to follow-up with potential respondents, including e-mail, fax, and phone calls. When the study concluded, 1,538 of the 3,316 possible participants had responded, for a response rate of 46.4%. The 1,538 respondents come from 545 unique jurisdictions—with one respondent from 126 jurisdictions, two respondents from 130 jurisdictions, and three or more respondents from 289 jurisdictions.

Select demographic characteristics of the 1,538 respondents are provided in Table 3.1. The mean age of respondents was 51.4 with an inter-quartile range of 10 (25th percentile being 47 and 75th percentile being 57). As anticipated, a sizable majority were male (70.6%), white (85.9%), highly educated (more than 60% with graduate degrees), and well compensated (68.3% with salaries over \$100,000). The table also displays the functional specialization of participants—28.6% were general managers (city managers or deputy/assistant city managers) and the rest managed specific city departments or functional areas. This distribution closely matched the distribution of functional specializations in the broader sample.

<INSERT TABLE 3.1>

The NASP-IV survey contains a wide variety of measures of interest to public administration and public management scholars, including, for example, measures on professionalism, networking, bureaucratic red tape, organizational culture, and agency and departmental performance. Most of the measures used in the NASP-IV study have been tested and validated in earlier studies; some measures were developed in Phases I through III of the National Administrative Studies Project; and yet others were written and/or refined for NASP-IV. The survey contains several measures appropriate for this study.

Study Measures

Whenever possible, measures for this study were taken from previously validated or commonly used items. NASP-IV includes a variety of categorical and

continuous measures on public service motivation, reward satisfaction, human capital value, goal ambiguity, hierarchical authority, role ambiguity, value congruence, job satisfaction, and employee turnover intentions. Of the items employed, only the human capital and turnover intention measures are new to the National Administrative Studies Projects. However, the human capital measures were adapted from the work of Lepak and Snell (2002) and the turnover intention measures were developed by the NASP-IV project team and a panel of external reviewers. Previous research appears to validate the use of all other measures. A description of study measures can be found in the subsections below.

Public Service Motivation

Public service motivation (PSM) is measured using five items on a scale of one to six, ranging from *strongly disagree* to *strongly agree*. These measures were taken from Perry's (1996, 1997) original research on public service motivation. They have subsequently been used in the 1996 Merit Principles Survey (conducted by the U.S. Merit Systems Protection Board) and several scholarly pieces (Kim, 2006; Alonso & Lewis, 2001; Naff & Crum, 1999). In the NASP-IV project, these five items have a Cronbach's alpha of 0.829, and include the following:

- Meaningful public service is very important to me.
- I am often reminded by daily events about how dependent we are on one another.
- Making a difference in society means more to me than personal achievements.
- I am prepared to make sacrifices for the good of society.

- I am not afraid to go to bat for the rights of others even if it means I will be ridiculed.

These items are common in the public service motivation scholarship (e.g., Perry, 1996; Naff & Crum, 1999; Alonso & Lewis, 2001), and appear to capture several different motivational dimensions, including an individual's sense of civic duty, compassion, and self-sacrifice. The inclusion of these measures is in-line with past studies, thereby allowing for substantial comparison between findings.

Reward Satisfaction

Employee reward satisfaction is measured using three items on a scale of one to five, ranging from *strongly disagree* to *strongly agree*. These items were developed by Paul Spector (1985) for use in the Job Satisfaction Survey. The items have a Cronbach's alpha of 0.645 (see section on Cronbach's alphas below), and include the following:

- If I accomplish my work objectives, it increases my chances for a pay raise.
- Fulfilling all my job responsibilities does little to improve my chances for a promotion (reverse coded).
- Raises are too few and far between (reverse coded).

Although public management research suggests public sector employees—particularly those in higher levels of the organization—appear to be primarily attracted to the challenge of public sector work and a desire to perform public service (Rainey, 2003; Hartman & Weber, 1980), compensation and other extrinsic rewards still exert a strong influence on the motivation of public sector employees (Rainey,

1982, 1983, 2003, 2006). The reward satisfaction items included in this study are intended to capture the role compensation and salary plays in motivating public employees.

Human Capital Value

The human capital value measures are new to the National Administrative Studies Project. These measures were adapted from the work of Lepak and Snell (2002) by the NASP-IV project team and a panel of external reviewers. The first three measures are intended to account for the perceived value an organization places on its workers. These items are measured on a scale of one to six, ranging from *strongly disagree* to *strongly agree*. They include the following:

- Please indicate the extent to which employees in your department have skills that directly affect organizational efficiency and productivity.
- Please indicate the extent to which employees in your department have skills that enable our organization to respond to new or changing demands.
- Please indicate the extent to which employees in your department have skills that directly affect customer/citizen satisfaction.

In addition, the human capital value factor includes a fourth measure intended to provide some sense of the extent to which an organization has implemented a formal human capital plan.¹ This item is measured on a scale of one to six, ranging from *not at all* to *fully*. The item is:

- Please indicate the extent to which your organization has implemented a human capital plan to meet strategic needs.

The Cronbach's alpha for these combined items is 0.650.

As with employee reward satisfaction (meaning compensation and salary), it seems likely human capital investments allow organizations to attract, recruit, and retain employees by meeting a wider range of employee needs. Consequently, including these measures in this study provides an opportunity to explore whether the value an organization places on its human capital influences an employee's sense of value congruence.

Organizational Goal Ambiguity

Three items are included to measure organizational goal ambiguity. These items are similar to measures developed and used by Rainey (Rainey, 1983; Rainey, Pandey, & Bozeman, 1995), but they have been modified slightly throughout consecutive versions of the National Administrative Studies Projects. Goal ambiguity is measured on a scale of one to five, ranging from *strongly disagree* to *strongly agree*. The goal ambiguity items have a Cronbach's alpha of 0.828, and include the following:

- This organization's mission is clear to almost everyone who works here (reverse coded).
- This organization has clearly defined goals (reverse coded).
- It is easy to explain the goals of this organization to outsiders (reverse coded).

Clear organizational goals help define and shape employee attitudes and behaviors (Rainey, 1989, 2003; Locke & Latham, 2002; Bandura, 1997; Bandura & Locke, 2003); conversely, ambiguous goals may increase employee stress and other

undesirable outcomes (Pandey & Rainey, 2006). Consequently, employees confronted with ambiguous goals may be less likely to believe their values are similar to those of their organizations. Including the goal ambiguity measures offers a chance to empirically examine this assertion.

Hierarchical Authority

One item on hierarchical authority is included in the NASP-IV study. This measure has been found in all previous versions of the study (Bozeman, 1999; Pandey & Scott, 2002). The item is measured on a scale of one to 10, ranging from *few layers of authority* to *many layers of authority*, and asks the following:

- Please assess the extent of hierarchical authority in your organization.

This measure is included to examine whether an organization's bureaucracy, or level of hierarchical authority, can be used to offset some of the negative affects of organizational goal and individual role ambiguity.

Role Ambiguity

The NASP-IV project also includes three measures on role ambiguity. These items are measured on a scale of one to five, ranging from *strongly disagree* to *strongly agree*. The measures were taken from a six-item scale developed by Rizzo, House, and Lirtzman (1970); they have also been included in past versions of the National Administrative Studies Project and several scholarly publications. In NASP-IV, the role ambiguity measures have a Cronbach's alpha of 0.855, and include the following items:

- My job has clear, planned goals and objectives (reverse coded).
- I feel certain about how much authority I have (reverse coded).
- I know exactly what is expected of me (reversed coded).

These measures are included to examine whether role ambiguity results in uncertainty and perceived conflicts between organizational demands and employee needs and expectations (Rizzo et al., 1970; House & Rizzo, 1972; Rainey, 2003). If true, it is possible employees may be less likely to believe their values and goals align with those of their organization.

Value Congruence

Value congruence is measured using three items adapted from Wright's (2007) measures of mission valence. The adapted items were measured on a scale of one to five, ranging from *strongly disagree* to *strongly agree*. The items have a Cronbach's alpha of 0.722, and include the following:

- This organization provides valuable public service.
- I believe that the priorities of this organization are quite important.
- My personal values are compatible with those of this organization.

This concept represents the thrust of the study. In the most basic sense, it attempts to capture whether individuals believe they “fit” with their organizations. Individuals who believe their values are congruent with those of their organization may express higher overall job satisfaction; these employees may also less frequently express intentions to leave their organizations.

Job Satisfaction

Job satisfaction is measured using two items on a scale of one to five, ranging from *strongly disagree* to *strongly agree*. These items were taken from the *Michigan Organizational Assessment Questionnaire* (Cammann, Fichman, Jenkins, & Klesh, 1979; Seashore, Lawler, Mirvis, & Cammann, 1982; Cook, Hepworth, Wall, & Warr, 1981) and have been used in previous administrations of the National Administrative Studies Project. These items have a Cronbach's alpha of 0.723, and included:

- In general, I like working here.
- In general, I like the type of work I do.

These items have been used in several studies, and are intended to capture the extent to which employees are satisfied with their jobs. Past research suggests higher job satisfaction reduces employee turnover intentions (Rainey, 2003).

Turnover Intention

Employee turnover intentions are measured using five items. These items are new to the National Administrative Studies Projects. The first item is measured on a scale of zero to 10, ranging from *not likely* to *extremely likely*. It asks:

- What is the likelihood of your leaving the organization in the next three years to take another job?

The four additional items are measured on a scale of one to six, ranging from *not attractive* to *very attractive*. They include the following:

- Thinking of the next three years, please rate the attractiveness of working for a private for-profit organization.
- Thinking of the next three years, please rate the attractiveness of working for a private non-profit organization.
- Thinking of the next three years, please rate the attractiveness of working for the state or federal government.
- Thinking of the next three years, please rate the attractiveness of working for a bigger local government.

These items have a Cronbach's alpha of 0.977. Including these measures together captures two distinct, but related, elements of an employee's turnover intentions: 1.) the likelihood an individual will leave an organization, *and* 2.) the attractiveness of employment in another organization. Past research suggests both elements are important in any effort to assess value congruence and turnover intention.²

*Controls*³

In addition to the measures presented above, several other factors are also included in this study. These factors consist of a respondent's educational level, sex, age, racial and ethnic background, and organizational position. Education, sex, age, and race and ethnicity are common controls in public management studies. The organizational position factors offer an opportunity to explore whether individuals within certain organizational roles (e.g., those employees acting as parks and recreation directors) present results differently than individuals in other

organizational roles (e.g., those employees acting as budget directors). Capturing these differences is a substantial benefit of this study, and could be used to inform future public management inquiries.

A Brief Note on Cronbach's Alpha

The study measures listed above generally report relatively high Cronbach's alphas. However, the reward satisfaction and human capital items present a Cronbach's alpha lower than would be preferable.⁴ This study utilizes structural equation modeling to examine the association between latent factors (see *Data Analysis* section below). In the structural equation modeling context, high Cronbach's alphas are also preferable—alphas above 0.70 are typically thought to demonstrate an adequate reliability score (Nunnally, 1978; Kline, 2005). That said, there is currently no gold standard for reliability scores (Kline, 2005; Brown, 2006). Alphas above 0.50 have frequently been reported by scholars using structural equation modeling (e.g., Brown, 2006). Erring on the side of caution, the reward satisfaction and all four human capital measures are included in this study to address issues of score validity rather than low reliability (Kline, 2005; Brown, 2006; see also, Endnote four).

Introduction to Data Analysis

The following subsections discuss important elements of the data analysis approach pursued in this study. These subsections provide an introduction to the specific approach followed, present the benefits and limitations of this approach, and briefly summarize issues to be discussed in greater detail in Chapter Four.

Introduction

The research questions and hypotheses presented in this study are analyzed through structural equation modeling. Structural equation modeling provides researchers with the flexibility and power necessary to explore the relationships between observed and latent variables through structural models that specify the relationships between latent factors (Shogren, Lopez, Wehmeyer, Little, & Pressgrove, 2006; Kline, 1998). Generally, structural equation modeling involves two basic steps. First, a theoretically-driven measurement model specifying the relationships between observed and latent variables is developed. Second, the measurement model is combined with a structural model that identifies the relationships among latent factors. Once this model has been established, structural equation modeling allows, among other things, for models of interest to be tested against reasonable rival alternative models—a key component of this study to be discussed below (Kelloway, 1998, pp. 33-34).

In more general terms, structural equation modeling examines the extent to which the relationships predicted by a model are consistent with observed data (e.g., the NASP-IV data). This evaluation is based on two pieces of information—observed covariances and implied covariances. Basically, in structural equation modeling, the covariance structure observed in a dataset is compared to the implied covariance structure of the proposed model. Model fit is then evaluated on the basis of how closely the observed and implied covariance structures align with one another.

Benefits of Structural Equation Modeling

Structural equation modeling has numerous advantages that make it the best and most obvious approach for addressing the questions and hypotheses in this study. First and foremost, this approach allows one to explore the relationships between latent constructs. In public management scholarship, it is often these latent constructs—rather than measured, manifest variables—that scholars are ultimately interested in examining. Second, structural equation modeling provides a relative intuitive way of exploring and interpreting these latent constructs. Third, structural equation modeling is much better at correcting for measurement error, which increases the overall reliability of one's findings (Kline, 2005; Brown, 2006; Kelloway, 1998). Fourth, structural equation modeling is also much better at addressing issues of content, criterion, and construct validity (Kline, 2005; Brown, 2006; Kelloway, 1998). Fifth, because many of the assumptions of normal ordinary least squares regression often are not met in public administration studies, structural equation models are more likely to yield accurate, generalizable estimates of true, unbiased population parameters (Kline, 2005; Brown, 2006; Kelloway, 1998). Sixth, the covariance structures of different structural equation models can easily be compared with one another and applied to other populations/samples.

A final, but significant, benefit of structural equation modeling rests in the ease with which the model of interest can be tested against reasonable alternative models (Kelloway, 1998, pp. 33-34). For this project, a model including the value congruence construct will be tested against a nested model without the value

congruence construct (see Figure 3.1, Panels A and B below). As Kelloway (1998) notes, “nested relationships exist between two models if one can obtain the model with the fewest number of free parameters by constraining some or all of the parameters in the model with the largest number of free parameters” (p. 35). Nested models can be directly compared through the chi-square difference test, which is a valuable omnibus test capturing [potential] increases in overall model fit (Brown, 2006; Kelloway, 1998).

<INSERT FIGURE 3.1>

The value of the nested models approach, for present purposes, rests in its ability to inform public management scholars—at least in a rough sense—as to the potential significance (or lack thereof) of the value congruence concept. If the model including the value congruence construct fails to perform significantly better than the model without the value congruence construct, then some evidence exists suggesting more parsimonious models without the value congruence construct might be sufficient in efforts to examine public service motivation, job satisfaction, and employee turnover intentions. Taken together, the logic behind, and benefits of, structural equation modeling suggests it is the best and most appropriate approach for the current study.

Limitations of Structural Equation Modeling

Although the benefits of structural equation modeling outweigh its limitations, these limitations are worth mentioning. First, the assumptions behind structural

equation modeling, as was mentioned above, rest on comparing covariance structures. As such, results cannot be interpreted as cleanly as regression results might. That said, careful attention to interpretation should address this limitation.

Second, and perhaps foremost, it is possible several equivalent structural equation models exist that better explain patterns in the NASP-IV dataset. For instance, as the study model suggests, public service motivation may influence value congruence. However, it is equally plausible that value congruence influences public service motivation. Because the “causal” direction of these associations cannot be clearly established in a structural equation model, results must always be treated with a degree of caution. That said, structural equation modeling is a theory-driven approach. In other words, the associations between constructs should represent prevailing theoretical wisdom. The current study relies heavily on established public management theory in model development—thereby alleviating some of the concern associated with equivalent models.

Although these two limitations are substantial, neither trumps the benefits inherent in applying structural equation modeling to address this study’s research questions and hypotheses.

Synopsis of Additional Matters

While this section has introduced many of the methodological and statistical considerations applied in this study, several important topics have been left to the larger data analysis component of Chapter Four.

Chapter Four will include discussions on the measurement model, and on the precise location of various endogenous and exogenous constructs. The method used to set the measurement scale in the confirmatory factor analysis will be identified and explained. Specific matrix and parameter constraints between the study's nested models will be described. Finally, the exact structural loadings will also be presented and discussed.

Summary

This chapter reviews the research methodology, design, study measures, and data analysis approach employed to address study research questions and hypotheses. It notes the study relies on data gathered in Phase IV of the National Administrative Studies Project (NASP-IV). NASP-IV is a multi-method study that included a survey administered to a nationwide sample of senior managers in U.S. local government jurisdictions with populations at, or above, 50,000 residents. When NASP-IV concluded, 1,538 of the 3,316 possible managers had participated—a response rate of 46.4%. The 1,538 respondents come from 545 unique jurisdictions.

Chapter Three also notes the current study relies on measures from the survey component of the NASP-IV project. Most of the measures used in NASP-IV have been tested and validated in earlier studies; some measures were developed in Phases I through III of the National Administrative Studies Project; and yet others were written and/or refined for NASP-IV.

The measures and constructs employed in this study are to be analyzed through structural equation modeling. Chapter Three presents the benefits and

limitations of structural equation modeling, and highlights methodological and statistical issues that will be discussed in greater detail in Chapter Four.

More generally, Chapter Three suggests the proposed empirical approach could lend substantial credence to the value congruence concept (e.g., through nested model comparisons). The chapter further suggests this approach is the best method for addressing study research questions and hypotheses, and that the methodological approach offered allows for the development of basic assumptions about the validity and significance of the value congruence concept as it relates to public service motivation, reward satisfaction, human capital, role and goal ambiguity, job satisfaction, and employee turnover intentions.

Notes

- ¹ Future projects will attempt to determine the precise nature of these human capital plans.
- ² Using the turnover measures in this fashion seems reasonable. Employees who find their values congruent with those of their current organization should be less likely to express *any* desire to leave. That said, as mentioned, combining the measures above captures two distinct, but related, elements of an employee's turnover intentions: 1.) the likelihood an individual will leave an organization, *and* 2.) the attractiveness of employment in another organization. Both elements are important in any effort to assess value congruence and turnover intention. For example, while workers may find employment in another organization attractive, they may still choose not to leave their current organization (e.g., to protect retirement interests). Conversely, employees may find the thought of leaving their organization unattractive, but will still do so (e.g., for reasons of pay or career advancement; changes in life circumstances). Therefore, efforts to simultaneously capture both the likelihood of leaving one's organization and the attractiveness of employment in another organization seems likely to more fully portray an individual's turnover intention. Moreover, past business administration research supports this theory, arguing turnover is often a function of organizational and individual variables (e.g., job satisfaction, length of tenure, occupational stress) *and* the availability and attractiveness of other employment opportunities (Cotton & Tuttle, 1986; George & Jones, 1996; O'Driscoll & Beehr, 1994). Consequently, including these measures provides a more holistic picture of turnover—one often connected in business administration scholarship to actual turnover behaviors (Mobley, Horner, & Hollingsworth, 1978; Tett & Meyer, 1993; Maertz & Campion, 1998).
- ³ This study employs structural equation modeling to explore the association between latent factors (see *Data Analysis* section in this chapter). Consequently, the term "Controls" more accurately refers to partialling the covariate effects of the education, sex, age, and organizational position factors with all other latent factors (e.g., public service motivation, value congruence). Although statistically different from controls in a regression analysis, those factors subject to partialling will be referred to as controls for ease of discussion here.
- ⁴ Two items are worth mentioning. First, the reward satisfaction measures are common in public management studies. Although this does not guarantee score *reliability*, it suggests public administration scholars believe these items provide a *valid* measure of employee reward satisfaction. Second, if the fourth human capital value item is dropped from the study measures (see earlier), the Cronbach's alpha score is 0.80. Nonetheless, this fourth measure is intended to provide some indication of the extent to which organizations have adopted a formal human

capital plan. Future efforts exploring the precise nature of these plans may address the lower reliability score reported in this study.

Chapter Four

Data Analysis and Results

This chapter presents the statistical results and theoretical implications of findings drawn from the current study. It includes a review of the steps taken to conduct the analysis, basic descriptive statistics, overall structural equation findings, and construct-specific results. Every effort is made to proceed with an eye toward providing enough detail to allow for the replication of study findings. Statistical results are then tied to broader research questions and hypotheses, drawing on theory provided in previous chapters. The theoretical implications of results are discussed in detail. Finally, a general summary and discussion of the statistical and theoretical limitations of the study approach are offered. The subsequent section reviews the data preparation steps necessary to conduct the statistical approach followed in this study.

Data Preparation

In order to conduct the analysis, it is necessary to begin by preparing the data. For structural equation models, this process involves two basic steps. First, a review of missing data is conducted. If missing data exists, corrective action must be taken. Second, once the review of missing data is conducted, survey measures must be recoded to reflect the directionality proposed in the study theory and hypotheses. These steps are discussed in greater detail below, beginning first with a synopsis of missing data procedures.

Missing Data

To assess structural equation models, it is necessary to examine fit indices. Many of these fit indices require complete datasets without missing information. In the social sciences, it is often difficult for researchers meet this requirement. When missing data is present, this leaves researchers with two choices: delete all cases with missing values or impute missing data. Past research indicates deleting cases with missing values may lead to substantial bias in results (Bollen, 1989; Kelloway, 1998; Kline, 2005; Brown, 2006). On this basis, it is recommended researchers impute missing values.

There are several options available for imputing missing data (Rubin, 1987; Brown, 2006). The most common of these options is to impute missing values on the basis of variable means from complete cases or through conditions set on other observed variables (Rubin, 1987; Kline, 2005; Brown, 2006). However, because these approaches draw on complete cases or specifically-selected observed values, they often underestimate variances and overestimate correlations (Rubin, 1987; Brown, 2006). For this reason, it is generally preferable to rely on multiple imputation procedures (Rubin, 1987; Kline, 2005; Brown, 2006). Multiple imputation procedures correct for the shortcomings found in other approaches by introducing random variation into the process (Rubin, 1987; Brown, 2006). In other words, multiple imputation procedures replace missing values with a set of plausible values that incorporate uncertainty into the final imputed values.

This study employs a form of multiple imputation based on Bayesian inferences and Markov Chain Monte Carlo (MCMC) simulations (Schafer, 1997). The benefits of MCMC imputation rest in its abilities to approximate a normal distribution and simultaneously simulate values of interest for missing cases (Schafer, 1997; Brown, 2006). In simpler terms, missing values are generated through simulated data that reflects both a normal distribution and all of the values found in a given dataset. This introduces variability in-line with standard multivariate assumptions and significantly limits the chance one will underestimate variances and overestimate correlations (Rubin, 1987; Brown, 2006). For these reasons, MCMC represents the best plausible method for responding to missing data in the NASP-IV survey.¹

A review of NASP-IV survey results suggests there is no apparent bias among respondents, with all functional areas and supervisory levels well-represented. There was, however, a small amount of missing data across key measures in the survey.² The total percentage of missing data values was 4.25%. In an effort to ensure the asymptotic properties of the underlying population were appropriately captured, the *Preliis* program was used to conduct MCMC imputation and generate missing values. This approach allowed for the maintenance of “important characteristics of the data set,” as well as an improved “ability to calculate unbiased and efficient parameter estimates” (Shogren, Lopez, Wehmeyer, Little, & Pressgrove, 2006, p. 41). The resulting dataset was used to conduct all subsequent analyses. However, as the next section indicates, it is first necessary to recode certain NASP-IV measures.

Recoded Measures

Once missing values were computed, it was necessary to recode several variables. The reward satisfaction measures were recoded to reflect positive perceptions about pay. In addition, the goal and role clarity measures were recoded to capture perceptions of ambiguity. In both cases, the recodes follow the directionality proposed in the study theory and hypotheses. The next section briefly reviews simple descriptive statistics based on the finalized data.

Descriptive Statistics

Means, standard deviations, scale ranges, and correlations for study variables are provided in Table 4.1. A review of means, standard deviations, and scale ranges suggests several constructs follow non-normal, skewed distributions, including job satisfaction, value congruence, and public service motivation. That said, on whole the data appear to follow a normal distribution. As such, it is likely alternative estimators, such as the generalized least square estimator (GLS), are unnecessary in the current study. Consequently, the maximum likelihood estimator (MLE) will be used.

A review of correlations indicates all constructs share small-to-moderate correlations. All correlations, except those between public service motivation and employee turnover intentions and hierarchy, are statistically significant at a p-value of 0.05 or better. However, because correlation does not necessarily imply causation, structural equation modeling will be employed to more precisely examine the

relationships between study constructs (Tufte, 2006). The following section will describe the basic analytic procedures followed.

<INSERT TABLE 4.1>

Analytic Procedures

Pursuing a theory-driven approach adapted from public service motivation scholarship, the current project examines an expanded public sector value congruence model that incorporates both supplementary and complementary sources of congruence. More specifically, it explores the impact value congruence, public service motivation, human capital investments, reward satisfaction, hierarchy, and role and goal ambiguity play in shaping employee job satisfaction and turnover intentions. In doing so, this research will identify other meaningful determinants of value congruence and will also offer an expanded, more comprehensive view of the relationship between individuals and their work environments.

In order to examine the research questions and hypotheses posed in this study, structural equation modeling is employed. There are three benefits to structural equation models that support its selection and application. First, social science scholars often use study measures to represent and examine broader constructs of interest. For instance, the *Merit Principles Survey* (conducted by the Merit Systems Protection Board since 1980) includes five distinct measures intended to capture an employee's public service motivation, which is the broader construct of interest. Structural equation models allow social science researchers to examine how well such

measures tend to reflect their intended constructs (Kelloway, 1998; Shogren et al., 2006; Kline, 1998). In other words, structural equation modeling would allow researchers to examine how well the five *Merit Principles Survey* measures on public service motivation actually represent the broader public service motivation construct. A second benefit of this approach is that structural equation models tend to be “both more rigorous and more flexible than are the comparable techniques based on multiple regression” (Kelloway, 1998, p. 2; Shogren et al., 2006; Kline, 1998). In their use of sophisticated path diagrams, structural equation models are much better equipped at handling complex social phenomena. Third and finally, structural equation modeling “provides a flexible and powerful means of simultaneously assessing the quality of measurement and examining predictive relationships among constructs” (Kelloway, 1998, p. 2; Shogren et al., 2006; Kline, 1998). More simply, the benefits of structural equation modeling point to the ease with which researchers can frame and test complex relationships.

The process for conducting structural equation modeling is also relatively straightforward, consisting of two basic steps. First, a theoretically-driven measurement model specifying the relationships between observed and latent variables is developed (Shogren et al., 2006; Kline 1998; Bollen, 1989). This step also requires addressing issues of model identification (Kelloway, 1998; Bollen & Long, 1993). Second, the measurement model is combined with a structural model (Shogren et al., 2006; Kelloway, 1998; Kline 1998; Bollen, 1989). The structural model provides substantial opportunity to assess causal pathways and overall model

fit along several different dimensions, including, for example, measures of absolute, relative, comparative, and parsimonious fit (Kelloway, 1998).

Structural equation modeling also provides two separate analytic tools that will aid in the current analysis. First, because the proposed model is new to public service motivation studies, structural equation modeling allows for a nested model comparison (see e.g., Figure 3.1). As Kelloway (1998) notes, “nested relationships exist between two models if one can obtain the model with the fewest number of free parameters by constraining some or all of the parameters in the model with the largest number of free parameters” (p. 35). Nested models can be compared directly through the chi-square difference test, which is a valuable omnibus test capturing potential changes in overall model fit (Brown, 2006; Kelloway, 1998). The significance of the nested models approach rests in its ability to inform public management scholars about the potential importance (or lack thereof) of the value congruence concept. In other words, it provides evidence as to whether including the value congruence concept in public service motivation models reduces theoretical and statistical parsimony unnecessarily.

A second tool useful in the current project rests in the ability of structural equation models to account for partial correlations (Kline, 2005). More specifically, structural equation modeling allows for the partialling of covariate effects between independent (predictor) variables and dependent (criterion) variables. Partialling allows the researcher to examine the unique covariate effects of a single independent variable on all other dependent variables (Kline, 2005). For the purposes of this study,

partialling will be used to examine the unique covariate effects of a respondent's race/ethnicity, educational level, sex, age, and organizational position. Education, sex, gender, and race/ethnicity are common controls in public management studies. The organizational position constructs offer an opportunity to explore whether individuals within certain organizational roles present results differently than individuals in other organizational roles. To date, there are no studies that explore the influence of organizational position (in local governments) on public service motivation. Capturing these differences is a substantial benefit of this study, and could be used to inform future public management inquiries.

Having described the logic followed in this analysis, the next section describes the basic characteristics of the measurement model. This approach will clarify results in the measurement and structural models.

Identifying the Primary Measurement Model

The primary measurement model (see e.g., Figure 3.1. Panel A.) examined in this study included nine latent endogenous constructs and thirteen exogenous constructs. For present purposes, the exogenous constructs are treated as partialled covariates. The endogenous constructs consist of public service motivation, employee reward satisfaction, human capital value, goal ambiguity, hierarchy, role ambiguity, value congruence, employee job satisfaction, and employee turnover intentions. Exogenous constructs include sex, education, race and ethnicity, salary, age, and eight organizational positions—assistant city managers and budget, personnel, public

works, economic development, parks and recreation, planning, and community development directors.

From here, it is necessary to set the scale for the measurement model. Setting the scale ensures unique model parameters can be obtained. To set the scale in this study, the effects-coding method is used. Although the effects-coding approach is a recent development in structural equation methods, it:

maintains a construct scaling that is in a meaningful metric; namely, a given latent variable will be on the same scale as the average of all its manifest indicators...In line with the basic principles of aggregation, the average set of indicators would be a more accurate estimate of the population value than any one indicator arbitrarily chosen from the set (Little, Sleger, & Card, 2006, p. 67).

Under this identification approach, the scale is set by “constraining the sum of the indicator’s loadings to be equal to the number of indicators” (Shogren, Lopez, Wehmeyer, Little, & Pressgrove, 2006, p. 42; Little, Sleger, & Card, 2006). Doing so, allows one to “estimate each construct’s latent variance...in a comparable, non-arbitrary metric” (Shogren et al., 2006, p. 42; Little et al., 2006).

In an ideal situation, each of the model constructs would be represented by three indicators—a situation known as being *just identified*. Unfortunately, only four of the nine endogenous factors are *just identified*, including employee reward satisfaction, goal ambiguity, role ambiguity, and value congruence. The hierarchy and employee job satisfaction constructs each have less than three indicators, and are subsequently *under identified*. The public service motivation, human capital value,

and employee turnover factors are *over identified*, meaning they have more than three indicators. Therefore, limiting assumptions must be made for the *under* and *over identified* factors.

Because there is no theoretical justification for assuming one indicator would better represent any of these factors, the lambda loadings for the *over identified* factors—public service motivation, human capital value, and employee turnover intentions—also rely on the effects-coding approach. For the *under identified* factors—hierarchy and employee job satisfaction—lambda loadings are set at a value of 1.0. While this approach is not optimal, each of these factors and their indicators are theoretically and empirically supported in previous public administration studies. Moreover, model fit statistics can still serve to assess the credibility of the model.

Identifying the Secondary, Nested Model

Like the primary model (see Figure 3.1. Panel A.), the secondary, nested model (see Figure 3.1. Panel B.) also includes a series of parameter estimates across the endogenous and exogenous constructs mentioned above. However, certain constraints are placed on the parameter estimates in the secondary, nested model. To examine the significance of the primary model, the nested model places constraints on the value congruence construct in an effort to obtain a more parsimonious public service motivation model (Kelloway, 1998, p. 35). Constraining the value congruence factor in this way allows for comparisons to be made between public service motivation models with and without the value congruence concept.

Model Results

This section reviews general model results. First, findings from the primary measurement model are presented. Second, an analysis of the proposed mediator relationships found in this project is conducted. Third, on the basis of the measurement model and relevant theory, the results of the nested structural models are presented. Finally, a chi-square difference test is conducted to more fully evaluate the model results. Specific results relating to the study hypotheses will be explored in later sections of Chapter Four.

Measurement Models

Because there is strong theoretical support for the study model, the primary measurement model accounting for each of the endogenous constructs is not permitted to vary freely across factors. Instead, the public service motivation, reward satisfaction, and human capital constructs are allowed to co-vary with the value congruence, job satisfaction, and turnover intention constructs. Reflecting specific meditational hypotheses, the goal ambiguity construct varies with the hierarchy, role ambiguity, value congruence, job satisfaction, and turnover intention constructs. Similarly, the hierarchy construct varies with the role ambiguity, value congruence, job satisfaction, and turnover intention constructs. Role ambiguity varies with value congruence, job satisfaction, and turnover intentions. Value congruence varies with the job satisfaction and turnover intention constructs. Finally, the job satisfaction construct varies with the turnover intention construct.

<INSERT FIGURE 4.1>

On whole, the primary measurement model demonstrated acceptable fit (chi-square ($df = 615; n = 1538$) = 3461.41, $p = 0.00000$; NNFI = 0.904; CFI = 0.931; RMSEA = 0.055). Results suggest residuals are within acceptable limits, and an examination of the modification indices indicates all of the study measures are both valid and influential in the theoretical model.

Although the secondary, nested model is primarily used to draw conclusions about the importance of the value congruence concept (see Figure 4.2), it is worth reporting model fit. On whole, the secondary measurement model performed worse than the primary model (chi-square ($df = 623; n = 1538$) = 4509.24, $p = 0.00000$; NNFI = 0.874; CFI = 0.909; RMSEA = 0.064). The NNFI and RMSEA both demonstrate mediocre (rather than acceptable) model fit; the CFI falls within acceptable ranges. Results again suggest residuals are within acceptable limits. However, an examination of the modification indices suggests the fourth public service motivation measure (see Chapter Three) could reasonably be dropped from the secondary measurement model. For the purposes of this study, the measure is left in the model on the basis of previous studies validating its use.

Based on the findings of the measurement models, the next section provides the general fit statistics for each structural model. Later sections will examine specific model results alongside each study hypothesis, and will also confirm each proposed mediation relationship.

Structural Models

Based on study theory and the results of the measurement models, two structural models are considered. The primary structural model directly reflects each of the hypotheses to be tested in this project. However, to provide some validation of the primary structural model, a secondary, nested model is also examined. This secondary model removes all causal pathways related to the value congruence concept. In doing so, it is possible to determine whether the value congruence concept adds substantial theoretical and empirical meaning to public service motivation theory and models. The basic results of each model are discussed below.

Primary Structural Model. The structural model with the largest number of free parameters allows for the value congruence, job satisfaction, and turnover intention factors to be regressed on the public service motivation, reward satisfaction, human capital value, goal ambiguity, hierarchy, and role ambiguity constructs. The model also allows the hierarchy factor to be regressed on the goal ambiguity construct, and the role ambiguity construct on hierarchy factor. Finally, the turnover intention construct is regressed on the job satisfaction factor. All other co-variances presented earlier in the primary measurement model are retained (see Figure 4.3).

<INSERT FIGURE 4.3>

Beta weights, as well as their levels of significance, are investigated along each structural pathway (see Table 4.2). As with the primary measurement model, the structural model demonstrates acceptable fit along the RMSEA, NNFI, and CFI fit

statistics (chi-square (615; $n = 1538$) = 3461.41, $p = 0.00000$; NNFI = 0.904, CFI = 0.931; RMSEA = 0.055). Based on the NASP-IV data, the primary model explained 47.6% of the variance within the value congruence factor, 68.2% of the variance for the job satisfaction factor, and 30.6% of the variance for the turnover intention factor. These results, in particular, indicate the model proposed in this study explains a much higher level of variance in the value congruence concept than past studies (Bright, 2008; Steijn, 2008; Wright & Pandey, 2008), providing some evidence in support of the need to simultaneously consider supplementary and complementary sources of congruence in public service motivation-value congruence studies.

<INSERT TABLE 4.2>

Secondary, Nested Structural Model. In the secondary, nested structural model, the value congruence parameters are constrained. The value congruence factor is allowed to co-vary with itself only. In other words, the parameter estimates between the value congruence factor and the public service motivation, reward satisfaction, human capital value, goal ambiguity, hierarchy, role ambiguity, job satisfaction, and turnover intention constructs are removed. This allows for model fit statistics to be examined when value congruence is assumed to have no impact on any other study constructs.

All other co-variances and regressions are retained. As such, the job satisfaction and turnover intention factors are regressed on the public service motivation, reward satisfaction, human capital value, goal ambiguity, hierarchy, and

role ambiguity constructs. Once again, the model also allows the hierarchy factor to be regressed on the goal ambiguity construct, and the role ambiguity construct on hierarchy factor. Finally, the turnover intention construct is regressed on the job satisfaction factor (see Figure 4.4).

<INSERT FIGURE 4.4>

Beta weights, and their significance, are again investigated along each pathway (see Table 4.3). The RMSEA and CFI for the secondary model demonstrate acceptable fit (chi-square (623; $n = 1538$) = 4509.24, $p = 0.00000$; CFI = 0.909; RMSEA = 0.064). However, the NNFI, unlike the primary model, demonstrates only mediocre fit (NNFI = 0.874). Finally, the secondary, nested model explained 51.4% of the variance in the job satisfaction factor, and 30.0% of the turnover intention construct.

<INSERT TABLE 4.3>

At some level, it is reasonable to expect the secondary, nested model will perform worse than the primary model. Models with a larger number of freely estimated parameters will often perform better than models with fewer freely estimated parameters (Kelloway, 1998). Given this reality, one way to verify the performance of nested models rests in the chi-square difference test. The next section describes the chi-square test, and reports results on its findings.

Chi-Square Difference Test

In order to more fully draw comparisons between the two models examined, a chi-square difference test is conducted. The chi-square difference test is based on the assumption that “the difference between the χ^2 values associated with each model is itself distributed as χ^2 with degrees of freedom equal to the difference in degrees of freedom for each model” (Kelloway, 1998, p. 36). The results of this test, which can be found in Table 4.4, indicate there is a statistically significant difference between the primary and secondary structural models ($p < 0.00000$). This indicates the additional parameters in the primary model resulted in a significant increase in overall model fit.

<INSERT TABLE 4.4>

It is worth mentioning the results of a chi-square test depend heavily on sample size (Kelloway, 1998). However, this test provides a mark for examining alternative models of the data. As such, it can serve as an appropriate tool for theory and model building and trimming—a task undertaken here (Brown, 2006). Moreover, the results of the chi-square difference test should be viewed in tandem with the model fit statistics.

Taken together, the results of the structural models and the chi-square difference test indicate the model including the value congruence construct performs significantly better than the model without the value congruence factor. This finding clearly indicates, whenever possible, future public service motivation models should

incorporate the value congruence concept. Failing to do so ignores an important causal pathway. The following section will present a brief review of the general findings from the structural models and chi-square difference test. Later sections discuss findings related to specific hypotheses.

General Findings

Two important findings can be drawn from the general structural equation modeling analysis. First, results clearly indicate the value congruence concept bears considerable theoretical and empirical warrant. As the model fit indices and chi-square difference test demonstrate, the value congruence concept provides a great deal of explanatory power otherwise lost in models failing to incorporate the concept. Because structural equation models are theory driven, this further suggests efforts must be taken to theoretically consider value congruence and public service motivation concomitantly.

Second, results also suggest an expanded view of the value congruence concept is much needed in public service motivation studies. Empirically, past public service motivation models have explained, at best, a quarter of the variance in the value congruence concept. The primary structural model employed in this analysis explains nearly 50% of the variance in the value congruence factor. This finding lends substantial credence to this study's claim that *both* supplementary and complementary sources of congruence are important and should be included in future theoretical and empirical models. Results further suggest other supplementary and complementary

factors are likely to exist, and will need to be incorporated in future public service motivation studies.

The following sections review findings as they directly relate to each of the study hypotheses, beginning first with the hypotheses on public service motivation. These findings are based on the primary structural equation model. Full results can be found in Table 4.5 (see also Table 4.2).

<INSERT TABLE 4.5>

Public Service Motivation and Value Congruence Findings

The first three hypotheses in this project build on recent public service motivation studies to provide a test of the mediating effect of value congruence on public service motivation, job satisfaction, and employee turnover intentions. This section reviews findings along each hypothesis.

Hypothesis 1: Public Service Motivation Will Have an Indirect, Positive Effect on Job Satisfaction Through Its Influence on Value Congruence.

The theory applied in this study assumes the value congruence concept will mediate the relationship between public service motivation and job satisfaction. In simple terms, theory suggests individuals with high levels of public service motivation will express greater job satisfaction when they believe their values are congruent with those of the organization. To examine the veracity of this hypothesis, two steps are necessary.³ First, one must determine whether the value congruence concept statistically mediates the relationship between public service motivation and

job satisfaction. Second, the hypothesized structural pathways between public service motivation, value congruence, and job satisfaction must be examined to determine whether results are as anticipated.

This study argues value congruence mediates the relationships between a wide range of factors, including public service motivation, employee reward satisfaction, human capital value, goal and role ambiguity, perceptions of hierarchical authority, job satisfaction, and employee turnover intentions. However, given past research, there is little theoretical or empirical reason to assume the additional elements included in this model are fully mediated by the value congruence concept. Consequently, the empirical model tested in this study assumes only partial (rather than full) mediation (see e.g., Moore, 2000).

Table 4.5 presents the findings for the partial mediation pathways. Results clearly indicate value congruence mediates the relationship between public service motivation and job satisfaction. For evidence of this claim, examine the pathways in Table 4.5 between: 1) public service motivation and value congruence, 2) public service motivation and job satisfaction, and 3) value congruence and job satisfaction. Each pathway is significant, providing evidence—in an SEM context—that the hypothesized mediator relationship between value congruence, public service motivation, and job satisfaction exists (Little, Card, Bovaird, Preacher, & Crandall, 2007; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Moore, 2000; Baron & Kenny, 1986).

A review of the structural pathways (see Table 4.2) provides further evidence in support of the first hypothesis. The pathways between public service motivation and value congruence *and* value congruence and job satisfaction are each statistically significant and in the directions posited. The direct pathway between public service motivation and job satisfaction is not statistically significant and is negative. In line with Wright and Pandey (2008), this may indicate the effects of public service motivation on job satisfaction are completely mediated (or carried through) the value congruence factor (p. 518, Note 11).

Based on these results, this study finds substantial support for the first hypothesis, indicating public service motivation has an indirect, positive effect on job satisfaction through its influence on the value congruence construct.

Hypothesis 2: Public Service Motivation Will Have an Indirect, Positive Effect on Employee Turnover Intentions Through Its Influence on Value Congruence.

The second hypothesis assumes the value congruence construct will mediate the relationship between public service motivation and employee turnover intentions. More simply, it suggests individuals with high levels of public service motivation will be less likely to express a desire to leave their organization when they perceive their values to be congruent with the organization. Yet, a review of the mediation pathways fails to support the second hypothesis. While the mediational pathway between public service motivation and value congruence is significant, the pathways between public service motivation and turnover intention *and* value congruence and turnover intention are not statistically significant (see Table 4.5). Similarly, an analysis of the

structural model indicates the pathways between public service motivation and turnover intention *and* value congruence and turnover intention are not statistically significant (see Table 4.2).

Based on these results, this study cannot confirm the second hypothesis, indicating public service motivation has an indirect, positive effect on turnover intention through its influence on the value congruence construct.

Hypothesis 3: The Effects of Public Service Motivation and Value Congruence on Job Satisfaction Will Indirectly Influence Employee Turnover Intentions.

This hypothesis recognizes the effects of public service motivation and value congruence on employee turnover intentions may, themselves, be mediated by the job satisfaction factor. In other words, hypothesis three assumes employees with high public service motivation and a sense of value congruence will express greater job satisfaction. When employees have high job satisfaction they may be less inclined to leave their organizations. Therefore, it is possible the effects of public service motivation and value congruence on turnover intention are carried through the job satisfaction factor.

An analysis of the mediational pathways indicates the effects of public service motivation and value congruence on employee turnover intentions are carried through the job satisfaction construct (see Table 4.5). The pathways between public service motivation and value congruence, value congruence and job satisfaction, and job satisfaction and turnover intention are each statistically significant and in the

directions hypothesized. Furthermore, the structural model (see Table 4.2) clearly demonstrates job satisfaction reduces employee turnover intentions.

Based on these results, this study finds substantial support for the third hypothesis, indicating the effects of public service motivation and value congruence on employee turnover intentions are ultimately carried through the job satisfaction factor. The next section examines findings on reward satisfaction and value congruence.

Reward Satisfaction and Value Congruence Findings

Hypotheses four through six suggest employee reward satisfaction represents a complementary source of congruence that the organization can leverage to affect overall value congruence among employees. Building on public service motivation and employee reward expectancy scholarship, this study argues value congruence may mediate the effect of employee reward satisfaction on job satisfaction and employee turnover intentions. Findings for each hypothesis are review below.

Hypothesis 4: Employee Reward Satisfaction Will Have an Indirect, Positive Effect on Employee Job Satisfaction Through Their Influence on Value Congruence.

Hypothesis four assumes reward satisfaction often matter to employees. As such, it seems likely employees who believe their values are similar to those of the organization *and* that they are rewarded as anticipated for their work may express higher levels of job satisfaction. In this case, the effects of employee reward

satisfaction on job satisfaction are assumed to be mediated by the value congruence construct.

Interestingly, an examination of the mediational pathways (see Table 4.5), indicates this hypotheses is not supported. While the pathways from reward satisfaction to job satisfaction *and* value congruence to job satisfaction are statistically significant, the pathway between the reward satisfaction and the value congruence constructs is not significant. Furthermore, the structural model indicates neither the pathway between reward satisfaction and value congruence *nor* the pathway between reward satisfaction and job satisfaction are statistically significant (see Table 4.2)

Based on these results, this study cannot confirm the fourth hypothesis, indicating reward satisfaction has an indirect, positive effect on job satisfaction through its influence on the value congruence construct.

Hypothesis 5: Employee Reward Satisfaction Will Have an Indirect, Positive Effect on Employee Turnover Intentions Through Their Influence on Value Congruence.

This hypothesis suggests employees who are satisfied with their compensation will be less likely to express a desire to leave their organizations. However, the effects of reward satisfaction on turnover intentions are likely to be mediated by the extent to which employees believe their values align with those of their organization. Nevertheless, this hypothesis cannot be confirmed.

A review of the mediational pathways (see Table 4.5) indicates employee reward satisfaction has an effect on employee turnover intentions. However, the

pathways between the reward satisfaction and value congruence constructs *and* the value congruence and turnover intention constructs are not significant. Consequently, the mediator relationship posed in this hypothesis cannot be confirmed. That said, the structural model indicates employee reward satisfaction directly reduces turnover intention (see Table 4.2). In other words, employees who believe they are rewarded as anticipated are, in fact, less likely to express a desire to leave their organizations. However, this relationship is not altered by the extent to which individual values align with organizational values.

Based on these results, this study cannot confirm the fifth hypothesis, which proposes reward satisfaction will have an indirect, positive effect on turnover intention through its influence on the value congruence construct. Instead, it appears as if reward satisfaction directly affects turnover intentions among members of this sample.

Hypothesis 6: The Effects of Employee Reward Satisfaction and Value Congruence on Job Satisfaction Will Indirectly Influence Employee Turnover Intentions.

Hypothesis six recognizes the effects of employee reward satisfaction and value congruence may be mediated by the job satisfaction factor. It assumes employees who believe their reward expectations are met by their organization and who also perceive their values are congruent with their organization may express greater job satisfaction. When employees have high job satisfaction, they may be less inclined to leave their organizations. In this case, it is possible the effects of reward

satisfaction and value congruence on turnover intention are carried through the job satisfaction construct.

An analysis of the mediational pathways indicates hypothesis six is not supported (see Table 4.5). Because the pathway between reward satisfaction and value congruence is non-significant, the level of congruence between individual and organizational goals and values is unlikely to influence the relationship between reward satisfaction and turnover intentions. Instead, as mentioned in the discussion on hypothesis five, it is likely reward satisfaction is more directly tied to turnover intentions (see Table 4.2).

Based on these results, this study cannot confirm the sixth hypothesis, which argued the effects of employee reward satisfaction and value congruence on turnover intentions are carried through the job satisfaction factor. The subsequent section examines findings on human capital value and value congruence.

Human Capital and Value Congruence Findings

The next three hypotheses argue organizations often make human capital investments in their employees. These organizationally-derived investments represent an effort to fulfill a broader range of employee needs. As such, the value an organization places on its human capital likely represents a complementary source of congruence—one acknowledging organizations may leverage internal resources to increase fit between the employee and the organization while protecting organizational interests (e.g., retaining a work-force). Consequently, this study argues value congruence may mediate the relationship between the importance an

organization places on its human capital and employee job satisfaction and turnover intentions. Findings for each hypothesis are assessed below.

Hypothesis 7: The Value an Organization Places on Human Capital Investments Will Have an Indirect, Positive Effect on Employee Job Satisfaction Through Their Influence on Value Congruence.

This hypothesis suggests the importance an organization places on its human capital can influence employee job satisfaction. More specifically, employees who believe their organizations place high value on human capital are more likely to be satisfied in their jobs. However, hypothesis seven suggests the effects of human capital value on job satisfaction are ultimately mediated by the extent to which employees believe their values are congruent with those of the organization. In other words, individuals who believe they are respected by, and important to, their organizations *and* who also think their values align with those of their organization will express higher levels of job satisfaction.

Results from the mediation analysis support this hypothesis (see Table 4.5). Each mediational pathway—between human capital and value congruence, human capital and job satisfaction, and value congruence and job satisfaction—is statistically significant and in the directions posited by hypothesis seven. Moreover, the structural model clearly indicates employees who report high levels of human capital value and high levels of value congruence are likely to be more satisfied in their jobs (see Table 4.2).

Based on these results, this study finds considerable support for hypothesis seven and the notion that value congruence mediates the relationship between human capital value and job satisfaction.

Hypothesis 8: The Value an Organization Places on Human Capital Investments Will Have an Indirect, Positive Effect on Employee Turnover Intentions Through Their Influence on Value Congruence.

Hypothesis eight suggests individuals who believe their organization finds substantial importance in its human capital will be less likely to express a desire to leave their organizations. That said, it is likely the relationship between human capital value and employee turnover intentions is mediated by the extent to which employees believe their values mirror those of their organization. In this case, employees who feel respected by their organizations and who have values congruent to their organization may be less likely to express a desire to leave.

Hypothesis eight cannot be confirmed in the current study. While a mediational analysis indicates human capital value is linked to value congruence, neither the pathway between human capital and turnover intentions nor value congruence and turnover intentions is statistically significant (see Table 4.5). Furthermore, the structural model indicates the pathways between human capital and turnover intention and value congruence and turnover intention are not significant. These results suggest there is no direct or indirect relationship between human capital and employee turnover intentions. More importantly, findings indicate the eighth hypothesis cannot be confirmed in this study.

Hypothesis 9: The Effects of Human Capital Investments and Value Congruence on Job Satisfaction Will Indirectly Influence Employee Turnover Intentions.

Hypothesis nine acknowledges the effects of human capital investments and value congruence on employee turnover intentions may in actuality be mediated by the job satisfaction construct. If so, employees who report higher levels of human capital value and value congruence, and job satisfaction may be less likely to express a desire to leave their organizations. However, the effects of human capital value and value congruence are likely to be carried through the job satisfaction construct.

In this case, the mediational analysis confirms hypothesis nine (see Table 4.5). Results indicate the effects of human capital and value congruence on employee turnover intentions are carried through the job satisfaction constructs. Key pathways are statistically significant and in the directions hypothesized. Additionally, the structural model (see Table 4.2) clearly demonstrates job satisfaction reduces employee turnover intentions.

Based on these results, this study finds substantial support for hypothesis nine, which assumes the effects of human capital investments and value congruence on employee turnover intentions are carried through the job satisfaction factor. The next section examines the final set of hypotheses.

Goal and Role Ambiguity and Value Congruence Findings

The final hypotheses reviewed in this study suggest the ability of an organization to provide clear goal and role guidance to employees is apt to influence

job satisfaction and turnover intentions. Very simply, leaders capable of clarifying organizational goals and employee roles will likely see employees who express greater job satisfaction and diminished turnover intentions. More importantly, clear goals and roles help employees comprehend how they fit within the organization and how their work benefits organizational goals. In this case, organizations with ambiguous goals and roles will likely have employees who are unsure if, and how, their values might align with those of the organization. Therefore, these hypotheses assume goal and role ambiguity will diminish an employee's sense of value congruence—leading to a drop in job satisfaction and an increase in turnover intentions.

Past research also suggests organizations may rely on structural strategies to control goal ambiguity and increase role clarity (Chun & Rainey, 2004; Pandey & Wright, 2006; Stazyk & Goerdel, under review). To test this assumption, the current study includes hypotheses on hierarchical authority. It assumes hierarchical authority may mediate the effects of goal and role ambiguity on value congruence, job satisfaction, and employee turnover intentions. Results for each of these hypotheses are presented below.

Hypothesis 10: Goal Ambiguity Will Have a Direct, Negative Effect on Value Congruence, and an Indirect, Negative Effect on Employee Job Satisfaction.

This hypothesis argues goal ambiguity should diminish the extent to which employees believe their values are congruent with those of their organization. It further assumes value congruence mediates the relationship between goal ambiguity

and job satisfaction. In this case, employees who believe organizational goals are ambiguous should be less likely to think their values align with those of the organization. It is likely this trend will lead to a decline in overall job satisfaction.

Results from the mediational analysis (see Table 4.5) confirm this hypothesis. The pathways between goal ambiguity and value congruence, goal ambiguity and job satisfaction, and value congruence and job satisfaction are each statistically significant and in the directions suggested. In other words, it appears as if goal ambiguity reduces an employee's sense of value congruence and overall job satisfaction. These results are further validated in the structural model with each causal pathway again statistically significant and in the directions hypothesized (see Table 4.2).

Based on these results, this study finds substantial support for hypothesis 10, which assumes the effects of goal ambiguity will reduce value congruence and overall job satisfaction.

Hypothesis 11: Goal Ambiguity Will Have a Direct, Negative Effect on Value Congruence, and an Indirect, Negative Effect on Employee Turnover Intentions.

Hypothesis 11 suggests value congruence is likely to diminish in the face of goal ambiguity. Moreover, it assumes employees who find it difficult to understand how their values align with those of their organization will be more likely to express a desire to leave their organizations. In other words, high levels of goal ambiguity and low levels of value congruence will lead employees to report greater interest in finding employment elsewhere. Again, this study assumes the value congruence

construct will mediate the relationship between goal ambiguity and employee turnover intentions.

An assessment of the proposed mediational pathways partially confirms this hypothesis. Each pathway—goal ambiguity to value congruence, goal ambiguity to turnover intention, and value congruence to turnover intention—is significant and in hypothesized directions (see Table 4.5). For instance, results suggest goal ambiguity decreases an employee’s sense of value congruence. Lower levels of value congruence then increase the likelihood that an employee will find leaving the organization attractive.

An examination of the structural model indicates none of the effects are statistically significant (see Table 4.2). In other words, while the value congruence construct clearly mediates the relationships between goal ambiguity and turnover intentions, the causal effects between goal ambiguity, value congruence, and turnover intention are non-significant. Consequently, the mediational component of this hypothesis is confirmed, but results suggest the proposed causal pathways offer little of empirical value in the current model. That said, it may be that the effects of goal ambiguity and value congruence are—as in other cases—carried through the job satisfaction construct.

Hypothesis 12: Hierarchical Authority Will Mediate the Relationship Between Goal Ambiguity and Role Ambiguity.

This hypothesis draws on the goal ambiguity literature suggesting organizations may rely on structural strategies to offset the harmful effects of goal

ambiguity (Chun & Rainey, 2004; Pandey & Wright, 2006; Stazyk & Goerdel, under review). It assumes high levels of goal ambiguity often lead to increased role ambiguity for employees. However, it further assumes the level of hierarchical authority within an organization may clarify organizational goals, thereby decreasing overall employee role ambiguity.

An examination of the mediational pathways assumed in this hypothesis indicates hierarchical authority does indeed mediate the relationship between goal and role ambiguity (see Table 4.5). Again, each pathway—goal ambiguity to role ambiguity, goal ambiguity to hierarchical authority, and hierarchical authority to role ambiguity—is statistically significant. However, the overall direction of these mediational pathways is opposite that expected in this study. In other words, hierarchical authority appears to increase in the face of higher levels of goal ambiguity (as anticipated); hierarchical authority, in turn, appears to increase role ambiguity (opposite expectations). The structural model supports this finding with higher levels of goal ambiguity increasing the reported level of hierarchical authority, and higher levels of hierarchical authority increasing role ambiguity (see Table 4.2).

Based on these findings, hypothesis 12 is confirmed in part. A mediational relationship is present and supported by the structural model. Yet, the nature of this relationship is opposite theoretical expectations.

Hypothesis 13: Role Ambiguity Will Have a Direct Negative Effect on Value Congruence, and an Indirect, Negative Effect on Employee Job Satisfaction.

Hypothesis 13 builds on earlier arguments, and suggests employees confronted with high levels of role ambiguity will report lower levels of value congruence and job satisfaction. Here, it is possible role ambiguity may diminish an employee's ability to comprehend if, and how, their values align with those of the organization. In cases of high role ambiguity, employees would likely report lower value congruence. Lower value congruence may translate into decreased job satisfaction.

Results from Table 4.5 provide strong evidence confirming hypothesis 13. First, each of the mediational pathways—role ambiguity to value congruence, role ambiguity to job satisfaction, and value congruence to job satisfaction—is statistically significant and in the directions posed. This suggests high levels of role ambiguity decrease an employee's sense of value congruence. It further suggests a decline in value congruence translates into diminished job satisfaction. However, results suggest a strong sense of value congruence may offset some of the harmful effects of role ambiguity. Finally, the results of the structural model (see Table 4.2) confirm the findings from the mediational tests.

Taken together, these results support hypothesis 13, suggesting value congruence mediates the relationship between role ambiguity and job satisfaction. Moreover, the benefits of value congruence may serve to offset the effects of role ambiguity.

Hypothesis 14: Role Ambiguity Will Have a Direct Negative Effect on Value Congruence, and an Indirect, Negative Effect on Employee Turnover Intentions.

As mentioned earlier, theory suggests role ambiguity is likely to diminish an employee's sense of value congruence with the organization. It is possible high levels of role ambiguity and low levels of value congruence will lead to an increase in employee turnover intentions. In this case, employees uncertain of how their values align with those of their organization may be more inclined to look for employment in other organizations that more clearly parallel their values and interests.

Results from a mediational analysis (see Table 4.5) suggest hypothesis 14 cannot be confirmed in this study. While the pathways between role ambiguity and value congruence *and* role ambiguity and turnover intentions are significant and in the directions posited, the pathway between value congruence and turnover intentions is non-significant. Furthermore, the structural model presents similar findings with significant pathways between role ambiguity and value congruence *and* role ambiguity and turnover intentions. A non-significant structural pathway exists between value congruence and the turnover intention construct.

Based on these results, this study cannot confirm this hypothesis, which argued the effects of role ambiguity on employee turnover intentions are carried through the value congruence factor.

Hypothesis 15: The Effects of Goal Ambiguity, Hierarchy, Role Ambiguity, and Value Congruence on Job Satisfaction Will Indirectly Influence Employee Turnover Intentions.

The final hypothesis in this study suggest the effects of goal ambiguity, hierarchy, role ambiguity, and value congruence on employee turnover intentions

may be carried through the job satisfaction construct. Here, it is possible high levels goal and role ambiguity—mediated by hierarchical authority—will decrease an employee’s sense of value congruence. In this circumstance, lower levels of value congruence will diminish overall job satisfaction, and will ultimately cause employee’s to express greater interest in leaving their organizations.

A mediational analysis indicates this hypothesis is confirmed (see Table 4.5). Higher levels of goal and role ambiguity do indeed appear reduce value congruence. This relationship holds despite the fact that hierarchical authority affects the relationship between goal and role ambiguity in a direction other than anticipated. Interestingly, the value congruence construct appears to offset the potential cumulative harm cause by goal and role ambiguity and hierarchical authority. In other words, high levels of value congruence may wash out the negative effects of goal and role ambiguity. Furthermore, high levels of value congruence also lead to increased job satisfaction. Increased job satisfaction reduces employee turnover intentions. Finally, results from the structural model confirm findings from the mediational tests (see Table 4.2).

On whole, these findings support hypothesis 15. High levels of goal and role ambiguity diminish value congruence, but high levels of value congruence offset any harm. High levels of value congruence also lead to increased job satisfaction. Increased job satisfaction reduces turnover intentions. Before interpreting the results from hypotheses one through 15, the next section will examine study controls and their influence on study constructs.

Findings Related to Study Controls

Several controls have been incorporated in the current study, including respondents' organizational position, sex, education level, race and ethnicity, salary, and age. Because this study relies on partialling (see section on Analytic Procedures), it is possible to report findings across each construct (e.g., public service motivation, reward satisfaction). Therefore, results for each construct will be reported briefly below, beginning first with the public service motivation construct. A list of all covariate effects can be found in Table 4.6.⁴

<INSERT TABLE 4.6>

Public Service Motivation and Model Controls

Across the public service motivation construct, five controls have statistically significant covariate effects (see Table 4.6). Within organizational position, finance, personnel, and economic development directors have statistically significant, negative relationships with the public service motivation construct. This suggests these organizational positions are statistically less likely to report having a public service motivation. Two socio-demographic controls are also significant: race/ethnicity and age. Although the current study cannot capture the precise nature of the relationship between race/ethnicity and public service motivation, it appears as if non-white groups are more likely to report high levels of public service motivation. Future studies should attempt to confirm this finding. Finally, age is the only control that has

a positive statistical covariance with public service motivation, suggesting older employees are more likely to report high levels of public service motivation.

Reward Satisfaction and Model Controls

Five statistically significant covariate effects exist with the reward satisfaction factor (see Table 4.6). Organizational position controls include economic development and planning directors. Individuals within these positions are less likely to be satisfied with the level of rewards they receive from their organizations.

Statistically significant socio-demographic factors include education level, salary, and age. Here, employees who have high education levels or are older appear to be less likely to believe they are rewarded adequately. However, employees who receive higher salaries are more likely to believe they are rewarded as anticipated.

Human Capital Value and Model Controls

For the human capital factor, seven covariate effects are statistically significant (see Table 4.6). In terms of the organizational position control, assistant city managers and finance, public works, and personnel directors each have negative, statistically significant relationships with the human capital construct, suggesting individuals in these positions are less likely to believe their organization values its human capital. Socio-demographic factors include sex, salary, and age. Each of the socio-demographic covariate effects is positive, indicating males, individuals with higher salaries, and older employees are all more likely to believe their organization values its human capital.

Goal Ambiguity and Model Controls

An examination of the associations between model controls and the goal ambiguity construct indicates 10 controls have statistically significant relationships (see Table 4.6). Seven of these controls come from organizational position.

Individuals who reported being assistant city managers and finance, public works, personnel, economic development, parks and recreation, and planning directors are likely to report being confronted with high levels of organizational goal ambiguity.

Only community development directors are unlikely to report high levels of goal ambiguity. Three socio-demographic controls also have statistically significant covariate effects with the goal ambiguity construct, including sex, education level, and age. Here, employees who are male and older appear less likely to report high levels of goal ambiguity. However, employees with higher levels of education are more likely to report confronting goal ambiguity.

Hierarchical Authority and Model Controls

Only two statistically significant covariate effects exist between model controls and the hierarchy construct (see Table 4.6). First, finance directors appear less likely to report confronting high levels of hierarchical authority within their organizations. Second, male employees appear more likely to believe their organization has a high degree of hierarchical authority.

Role Ambiguity and Model Controls

For the role ambiguity construct, four covariate effects are statistically significant (see Table 4.6). Here, finance, parks and recreation, and planning directors are all less likely to report experiencing a high degree of role ambiguity within their organizations. For the socio-demographic controls, only salary has a statistically significant covariate effect with the role ambiguity construct. In this case, individuals with higher salaries appear less likely to believe they confront a high degree of role ambiguity.

Value Congruence and Model Controls

A review of the covariate effects between model controls and the value congruence construct indicates only two controls are statistically significant (see Table 4.6). Based on this review, it appears as if finance and personnel directors are less likely than employees in other positions to believe their values are congruent with those of their organization.

Job Satisfaction and Model Controls

Interestingly, none of the controls have statistically significant covariate effects with the job satisfaction construct (see Table 4.6). This suggests employees from different organizational positions and with different socio-demographic backgrounds are no more (or less) likely to report having high (or low) job satisfaction.

Turnover Intention and Model Controls

Finally, three socio-demographic controls have statistically significant covariate effects with the turnover intention construct, including sex, education level, and age (see Table 4.6). In this case, employees who are male and older are less likely to express a desire to leave their organizations. However, employees with higher educational levels appear more likely to consider leaving their organizations.

The following section will attempt to interpret the cumulative set of findings taken from this study. Some effort will be made to tie these findings to the theory applied in this study theory.

Discussion

To examine the theoretical model proposed in this study, an extensive and fairly substantial analysis of data drawn from Phase IV of the National Administrative Studies Project (NASP-IV) has been conducted. On whole, the results of this analysis have confirmed the theoretical suppositions set forth. This section reviews these findings, and attempts to tie conclusions to the theoretical and practical arguments found in Chapter Two, beginning first with a general evaluation of the veracity of the value congruence concept.

As noted in Chapter Two, studies incorporating the value congruence concept are relatively new to public administration and management scholarship. Three recent public service motivation studies have included the value congruence concept, arguing many of the inconsistencies found within the public service motivation literature trace from a failure to account for how well individuals fit with their

organizations (Bright, 2008; Steijn, 2008; Wright & Pandey, 2008). However, these past studies have made little effort to determine if empirical public service motivation models incorporating the value congruence concept reduce theoretical and statistical parsimony unnecessarily. In other words, these studies have failed to demonstrate whether the value added by the value congruence concept is theoretically and statistically meaningful.

The nested model comparison conducted in this study attempts to provide empirical support for the theoretical significance of the value congruence concept. As noted earlier in this chapter, nested model comparisons allow researchers to directly evaluate model parsimony and the relevance of specific constructs. Results from the nested model comparison conducted here clearly indicate incorporating the value congruence concept brings a great deal of substantive meaning to public service motivation theory and models. In the present case, the public service motivation model including the value congruence construct performed significantly better than a model without the factor. Based on this finding, the current study verifies the importance of recent calls to incorporate the value congruence concept in public service motivation theory and scholarship (Bright, 2008; Steijn, 2008; Wright & Pandey, 2008; Houston, 2009).

Having demonstrated the general importance of the value congruence concept to public service motivation scholarship, this study also attempts to develop an expanded theoretical model incorporating a wider range of factors likely to influence congruence between individuals and organizations. This expanded theoretical model

is much needed given recent efforts to incorporate the concept in public service motivation studies. Early studies consider only one form of fit between the individual and the organization—commonly referred to as *supplementary congruence*. As noted in Chapter Two, supplementary congruence occurs when the goals and values of the individual and the organization are well-matched to one another (Bright, 2008, pp. 151-152; Kristof, 1996; Muchinsky & Monahan, 1987).

Drawing on the notion of supplementary congruence, public service motivation scholars have argued the goals and values of individuals are best captured, or understood, through an employee's unique public service ethic; organizations with values and goals similar to the individual, or capable of providing opportunities to fulfill an individual's unique public service motives, will have employees who perform better, are more satisfied, and are less likely to leave their jobs.

In emphasizing the relevance of supplementary congruence, public service motivation scholars have generally ignored the importance of an alternative form of congruence between the individual and the organization—that of *complementary congruence*. Complementary congruence occurs when the organization provides for the needs of individuals by leveraging internal organizational resources (Bright, 2008, pp. 151-152; Kristof, 1996; Muchinsky & Monahan, 1987). In this instance, alternative motivators, such as adequate rewards and clear organizational goals and roles, become particularly important in achieving fit between the individual and the organization.

Given the apparent relevance of *both* supplementary and complementary sources of congruence, this study presents and tests an alternative, expanded public service motivation value congruence model. This expanded model builds on previous studies by suggesting value congruence is shaped by supplementary factors like public service motivation *and* complementary factors like employee reward satisfaction, human capital value, and goal and role ambiguity.

To examine the validity of this claim, structural equation modeling is employed to test both a general structural model and 15 hypotheses. The structural model and hypotheses typically suggest the effects of each supplementary and complementary factor are carried through, or mediated by, the value congruence construct. Results demonstrate the general structural model performs well, indicating the value congruence concept provides a great deal of theoretical explanatory power.

A detailed analysis of model hypotheses clarifies the precise nature of the associations between study factors and employee job satisfaction and turnover intentions. For instance, in almost every case, value congruence mediates the relationship between study factors and job satisfaction. However, the value congruence construct fails to mediate the relationship between study factors and employee turnover intentions. Instead, it appears as if the effects of the value congruence construct on employee turnover intentions are themselves mediated by the job satisfaction factor. In other words, value congruence does not directly reduce employee turnover intentions. However, value congruence is likely to result in indirect reductions in turnover intention through its effects on employee job

satisfaction. While this finding conflicts with several study hypotheses (including Hypotheses 2, 8, 11, and 14), it also confirms several alternative hypotheses that recognized the effects of study factors and value congruence might be carried through the job satisfaction construct (Hypotheses 3, 9, 15).

Furthermore, this analysis leads to two interesting findings not in-line with study hypotheses. First, results imply the effects of employee reward satisfaction on job satisfaction and turnover intentions are not *indirectly* mediated by the value congruence construct. That said, the structural model (see Table 4.2) indicates employees who believe they are receiving adequate rewards will, in fact, be less likely to express a desire to leave their organizations. In this case, employee reward satisfaction appears to *directly* affect turnover. This has serious implications for public sector organizations, suggesting organizations incapable of meeting their employees' reward expectations may be unable to leverage other organizational resources to offset employee turnover intentions.

Second, findings also provide further insight into the relationship between organizational goal and individual role ambiguity. Drawing on past theory, this study argues organizations may rely on structural strategies to clarify ambiguous goals and roles (Chun & Rainey, 2004; Pandey & Wright, 2006; Stazyk & Goerdel, under review). More specifically, the study argues organizational leaders may be able to reduce ambiguity by increasing the level of hierarchical authority within the organization. In this case, hierarchical authority should mediate the association between goal and role ambiguity. Results in this study indicate hierarchy does, in fact,

mediate the relationship between goal and role ambiguity. However, findings suggest the effects of goal ambiguity on role ambiguity are amplified by the level of hierarchical authority within the organization. In other words, high levels of ambiguity are associated with high levels of hierarchical authority, and high levels of hierarchical authority are associated with high levels of role ambiguity. Because the NASP-IV project only includes data from city managers and department heads, it is possible this finding directly reflects the population surveyed. Given this, there is strong reason to suspect employees in lower levels of the organization may be likely to respond to high levels of hierarchical authority more positively, and may further believe hierarchy clarifies goals and roles (Thompson, 1967). Future efforts should be made to test this claim.

In addition to testing the structural model and each hypothesis, this study also includes several organizational controls. Because of the method employed, a great deal of information can be taken from these controls, leaving a complete evaluation beyond the scope of this project. That, several surprising trends appear to occur across model controls and factors. First, employees occupying certain organizational positions—particularly finance, personnel, and economic development directors—repeatedly appear to report having personal characteristics or experiences substantially different from employees occupying other organizational positions. For instance, finance, personnel, and economic development directors are significantly less likely to report having high levels of public service motivation. Additionally, finance and personnel directors are significantly less likely to indicate their values are

congruent with those of their organization. There are several possible explanations for these differences. For instance, it may be that individuals attracted to these positions are generally less likely to feel connected to the public sector and to public service. Alternatively, it is possible certain organizational positions may inherently be structured in ways that diminish, for instance, public service motivation or value congruence. Additional research should explore the relationship between organizational position and the factors examined in this study.

A second set of interesting findings traces to the socio-demographic controls included in this study. While all of the socio-demographic controls are important, it appears as if an employee's age, sex, and educational level are most likely to alter results on study factors. It is impossible to assert a general trend among NASP-IV respondents across age, sex, and educational level. However, this finding implies socio-demographic factors may have substantial, highly nuanced implications for public management and public service motivation scholars. Steps should be taken to clarify the precise nature of these relationships.

Finally, given study findings, some attention should be paid to model controls and the job satisfaction construct. Results indicate none of the model controls have a statistically significant influence on job satisfaction. This finding implies employees from different organizational positions, and with different socio-demographic backgrounds, are no more likely to report having high job satisfaction than employees from other positions or backgrounds. Conversely, they are no more likely to report

having low job satisfaction. On whole, this finding suggests public sector workers experience job satisfaction similarly.

Based on findings from the nested model comparison, the mediational analysis, the structural model, and organizational controls, results clearly support this study's call for an expanded public service motivation value congruence model. Furthermore, findings largely confirm many of the key elements of the theoretical model proposed. As evidence of this claim, the value congruence construct mediates the associations between public service motivation, human capital value, organizational goal ambiguity, hierarchical authority, and individual role ambiguity on employee job satisfaction. Additionally, the effects of value congruence and other study factors indirectly affect employee turnover intentions through job satisfaction. Consequently, this study finds substantial overall support for the proposed theoretical model.

That said, there are several limitations in the current study. First, the NASP-IV project is limited to information gathered from city managers, assistant city managers, and department heads. Individuals at other levels within these cities may respond differently to study factors. In other words, the factors affecting value congruence for a street-level bureaucrat may be markedly different than those of organizational leaders. Furthermore, value congruence may vary across different levels of government (e.g., federal, state, local). Consequently, some effort should be made to test this model in other samples and populations.

Second, in testing the proposed model, this study has relied on the use of several perceptual measures. While these measures are clearly appropriate for this study, future research should attempt to link these findings to more “objective” measures. For instance, as noted in Chapter Three, some effort should be made to link perceptual measures on human capital value to actual human capital plans. It would also be helpful to cross-validate findings with other measures on goal ambiguity and organizational hierarchy.

Finally, because value congruence is likely to be highly individualized, survey data limits the ability for researchers to ascertain which factors may have the greatest influence on securing congruence between individuals and organizations. Consequently, future public service motivation value congruence studies would be deeply benefited by taking steps toward triangulating findings across studies, and by pursuing other research methodologies that will aid in capturing and categorizing factors influencing value congruence. For instance, researchers may consider conducting qualitative interviews that parse out and clarify factors affecting value congruence.

Despite these limitations, results clearly suggest the theoretical model tested in this study adds substantial value to public service motivation studies and public management scholarship. Chapter Five will discuss the general conclusions, implications, and contributions of this study in greater detail. However, the next section briefly reviews findings from this chapter.

Summary

Chapter Four presents the statistical results and general theoretical implications drawn from the current study. It begins by reviewing the basic steps taken to conduct the current analysis, starting first with an examination of the data preparation procedures. The data preparation procedures describe how missing values across the NASP-IV survey are managed. Data preparation procedures also clarify how study variables are recoded.

Following a summary of data preparation steps, the chapter presents basic descriptive statistics. These descriptive statistics help validate the empirical approach pursued in this study. Based on these results, the analytic procedures employed to examine the theoretical model are described in detail. An effort is made illustrate the benefits of structural equation modeling, and to precisely identify the primary and secondary measurement models.

Once the primary and secondary measurement models are identified, the study reviews general model results. More specifically, it reviews results for both measurement models, both structural models, and a chi-square difference test. On whole, findings indicate the primary model of interest performs well, and that the value congruence construct holds considerable empirical and theoretical warrant. Drawing on these findings, the chapter then examines results along each study hypothesis. With the exception of hypotheses on employee reward satisfaction, results provide strong evidence in support of the theoretical model.

Next, the chapter reviews the affect of several controls on overall model performance. Results indicate members in certain organizational positions—specifically, finance, personnel, and economic development directors—repeatedly report experiences different than employees in other organizational positions. Study factors are also often influence by socio-demographic characteristics. Of these characteristics, age, sex, and educational level appear to have the greatest repeated influence.

The chapter concludes by tying study finding to broad theoretical arguments raised in Chapter Two. A review of study limitations is also conducted. On whole, results from this chapter provide strong evidence in support of the theoretical and empirical model posited in this project, leaving the final chapter to discuss the general conclusions, implications, and contributions of this study in greater detail.

Notes

- ¹ Bootstrapping, which is a resampling procedure that corrects for non-normality, may represent a better approach to addressing missing data issues in the NASP-IV survey (Brown, 2006; Efron & Tibshirani, 1993; Mooney & Duval, 1993). Normal computing constraints make bootstrapping difficult currently. As bootstrapping becomes more popular among researchers, it could serve as a viable alternative to the MCMC imputation approach applied here.
- ² Several study measures are not considered in the analysis of missing data. These include random identification numbers, measures conditioned upon an internal logic limiting variability (e.g., transformational leadership measures, red tape vignettes, cooperation and contracting measures), and descriptive measures (e.g., item response rates, city numbers, respondent counts, type of government flags). These deletions were made due to the nature of the variables and the constraints they would place on the imputation process.
- ³ These steps will be repeated in all subsequent analyses.
- ⁴ Covariate effects for the secondary, nested model can be found in Appendix A.

Chapter Five

Summary, Conclusions, and Recommendations

Chapter Five summarizes the central theoretical arguments and empirical findings of this project. General theoretical and empirical conclusions are presented. Specific findings related to issues of supplementary and complementary congruence are also discussed. Findings and conclusions are then linked to the research questions posed at the onset of this study. Next, the theoretical contributions and practical implications of the study are reviewed. Suggestions for future research are proposed, and practical advice is offered to practitioners. The chapter concludes with a brief synopsis of the entire project.

Central Theoretical Arguments and Empirical Findings

This project argues the motivational terrain of public sector employment is substantially different than that of the private sector. Recognizing these differences, scholars have increasingly relied on the public service motivation concept to describe the unique service ethic held by public employees. Nonetheless, research indicates the public service motivation concept fails, at times, to affect employee-related factors, attitudes, behaviors, and preferences as anticipated by the theory (Bright, 2008; Wright & Pandey, 2008; Steijn, 2008; Pandey & Stazyk, 2008). This limitation has recently caused several scholars to suggest one avenue for addressing the inconsistencies found within the public service motivation literature rests in the value

congruence concept (Steijn, 2008; Bright, 2008; Wright & Pandey, 2008; Houston, 2009).

The value congruence concept represents an attempt to capture and describe how well individual and organizational interests align on the basis of shared goals, values, resources, and culture (Bright, 2008, pp. 151-152). Growing evidence indicates value congruence positively affects a number of public sector employee attitudes and behaviors—particularly job satisfaction and employee turnover intentions (Bright, 2008, pp. 151-152; Steijn, 2008; Wright & Pandey, 2008). Yet, recent studies only consider one form of fit between individuals and organizations—commonly referred to as supplementary congruence. In doing so, public service motivation scholars have overlooked the fact that organizations may be able to leverage internal resources to increase fit with employees—a form of complementary congruence.

This project calls for a broader application of the value congruence concept to public service motivation models, suggesting supplementary and complementary sources of congruence should be considered concomitantly. An expanded public sector value congruence model is proposed and tested. This model assumes value congruence mediates the relationship between several possible sources of supplementary and complementary congruence—including public service motivation, employee reward satisfaction, human capital investments, organizational hierarchy, and goal and role ambiguity—and employee job satisfaction and turnover intentions.

The goal of this research is to identify other meaningful determinants of value congruence and to offer an expanded, more comprehensive view of the relationship between individuals and their work environments. Practically, public sector organizations need to leverage a wide array of assets to manage individual and organizational performance effectively. Furthermore, this project poses and attempts to address three research questions critical to the development of public service motivation value congruence theory and models. First, what is the nature of the relationship between individual and organizational goals and values? Second, what resources can organizations leverage to increase value congruence? Finally, do public employees place a higher premium on helping individuals and society than on other intrinsic and extrinsic motivators? To address these questions, 15 hypotheses are tested. Results provide substantial insight into the theoretical model proposed in this project, as well as each research question. The following subsections describe findings along several fronts, beginning first with a review of general results.

General Theoretical and Empirical Findings

Structural equation modeling is used to test each of the propositions and hypotheses considered in this study. On whole, results provide sizeable empirical evidence in support of the proposed theoretical model, validating the need to consider complementary and supplementary sources of congruence simultaneously in public service motivation research. More specifically, results from a nested model comparison clearly corroborate earlier research arguing public service motivation

studies should incorporate the value congruence concept (Bright, 2008; Steijn, 2008; Wright & Pandey, 2008; Houston, 2009).

In addition, a detailed analysis of model results and study hypotheses provides further evidence in support of the proposed theoretical model. Findings suggest the value congruence concept mediates the associations between public service motivation, human capital investments, organizational hierarchy, and goal and role ambiguity with employee job satisfaction. In other words, those employees with high levels of public service motivation and those employees who believe their organizations value its human capital are more likely to report having a higher sense of value congruence and overall job satisfaction. Employees who experience high levels of goal and role ambiguity and high levels of hierarchical authority within their organizations are less likely to report having a high degree of value congruence. However, individuals with higher levels of value congruence—despite goal and role ambiguity and high levels of hierarchical authority—still report greater overall job satisfaction.

The empirical model also helps clarify certain theoretical relationships. First, contrary to expectations, value congruence failed to mediate the relationship between employee reward satisfaction and job satisfaction and turnover intentions. Employee reward satisfaction had no effect on value congruence or job satisfaction. Instead, employee reward satisfaction directly reduced turnover intentions. In other words, employees who are largely satisfied with their level of compensation and financial remuneration are less likely to express a desire to leave their organizations.

Second, the value congruence concept failed to directly mediate the relationship between public service motivation, human capital investments, goal and role ambiguity, and organizational hierarchy with employee turnover intentions. Instead, empirical results suggest the effects of these factors on turnover intentions are themselves mediated by employee job satisfaction, suggesting employees with higher levels of value congruence are more likely to be satisfied with their jobs; employees with greater job satisfaction are less likely to express a desire to leave their organizations. This finding helps clarify the precise causal mechanisms through which value congruence influences employee attitudes and behaviors.

Finally, model results also indicate individuals occupying certain organizational positions and with particular socio-demographic backgrounds have unique characteristics that should be considered in future studies. In terms of organizational position, finance, personnel, and economic development directors repeatedly report having personal characteristics or experiences different from employees occupying other organizational positions. Generally, individuals in these positions are less likely to express a high degree of value congruence. With respect to socio-demographic characteristics, it appears as if an employee's age, sex, and educational level alter results on study factors. Although there is no discernable pattern among these characteristics, findings suggest socio-demographic factors have substantial, highly nuanced implications for public management and public service motivation scholars.

In sum, the results of this project generally support the theoretical importance of the value congruence concept. Findings also support the expanded theoretical model posited in this study, suggesting value congruence is shaped by a variety of supplementary and complementary factors. Moreover, results clarify the precise causal mechanisms through which value congruence influences employee attitudes and behaviors and provides insight into factors that affect overall results. The next two subsections describe what we learn about supplementary and complementary sources of congruence from this study.

Model Findings and Supplementary Congruence

In-line with past studies, model results indicate public service motivation influences an employee's sense of value congruence (Bright, 2008; Steijn, 2008; Wright & Pandey, 2008; Houston, 2009). More specifically, this project confirms arguments that public service motivation cannot guarantee fit between individuals and organizations, job satisfaction, or turnover intentions (Bright, 2008, p. 163). Instead, results highlight the importance of achieving compatibility between the individual and the organization (Wright & Pandey, 2008).

This study also finds past public service motivation value congruence research—in considering only supplementary sources of congruence—has fallen short. For instance, as Table 4.2 demonstrates, the effects of human capital investments and goal and role ambiguity have much stronger associations with value congruence than public service motivation. Consequently, this suggests public service motivation and value congruence must be considered alongside other factors,

including, for instance, complementary sources of congruence—a subject discussed in the following subsection.

Model Findings and Complementary Congruence

Complementary congruence recognizes organizations need not stand idly by, hoping they have hired employees with similar values and goals. Instead, the concept suggests organizations may leverage internal resources to affect congruence between the individual and the organization. More specifically, by providing for the salient, unmet needs of individuals, organizations may generate or grow congruence. In applying the notion of complementary congruence to public service motivation value congruence research, this project presents a more accurate and holistic view of value congruence. The project also identifies several sources of complementary congruence organizations may be able to influence to increase overall value congruence.

Along these lines, organizations may take several steps to increase value congruence, job satisfaction, and turnover intentions (indirectly). First and foremost, organizations capable of clarifying goals and individual roles may be able to substantially influence value congruence. This finding is in-line with past research stressing the importance of clear goals and roles for employees (e.g., Locke & Latham, 2002; Bandura, 1997; Bandura & Locke, 2003; Rizzo et al., 1970; House & Rizzo, 1972; Rainey, 2003). Second, study findings further indicate attempts to stave-off goal and role ambiguity through centralization efforts may create greater uncertainty for employees (e.g., Ramaswami et al., 1993), thereby diminishing overall value congruence.

Finally, organizations capable of making human capital investments in their employees may also see increases in overall value congruence. Beyond filling organizational needs, these investments often provide substantial benefits to the employee in the form of increased job flexibilities, educational opportunities, and/or on-the-job training (Schultz, 1961; Becker, 1975; National Academy of Public Administration 2005a, 2005b). Moreover, human capital investments may also empower and integrate and align employees with the organization's strategy, mission, and operations (Rainey, 2003, p. 413). Consequently, organizations capable of making human capital investments may increase value congruence by meeting a wider range of employee needs otherwise not necessarily held by the organization.

Surprisingly, the results of this study indicate employee reward satisfaction does not significantly influence employee value congruence or job satisfaction; instead, reward satisfaction seems to *directly* affect employee turnover intentions. This has two interrelated implications for scholars and practitioners. First, it suggests organizations capable of meeting employee reward expectations may be less likely to see turnover. Second, organizations incapable of meeting their employees' reward expectations may be unable to leverage *other* organizational resources to offset employee turnover intentions. For cities with limited resources, this suggests any effort to grow value congruence may ultimately be insufficient. At best, this finding creates a horse-race between job satisfaction and employee reward satisfaction. Future studies should confirm this finding in other samples and populations.

Having reviewed the benefits and shortcomings of supplementary and complementary congruence, the next subsection discusses findings as they relate to each research question. Later sections describe the theoretical and practical contributions of this study and offer recommendations for future research. The chapter concludes with a short summary and review of the entire document.

Revisiting Study Research Questions

Three research questions were posited at the onset of this study: 1) *What is the nature of the relationship between individual and organizational goals and values*, 2) *What resources can organizations leverage to increase value congruence*, and 3) *Do public employees place a higher premium on helping individuals and society than on other intrinsic and extrinsic motivators?* Study results provide substantial insight into these questions.

Results in this study indicate individual and organizational goals and values are often tightly integrated. As in the case of public service motivation, individuals carry certain interests and values with them into the organization. Organizations capable of providing opportunities for workers to meet these interests are likely to have employees who are more satisfied with their jobs and less likely to express a desire to leave their organizations. Furthermore, to the extent that certain individual values and interests cannot be provided by the organization, organizations should be particularly careful in selecting and hiring employees.

That said, organizations are not left wholly at the mercy of employee values and interests. Organizations often have internal resources that can be leveraged to

meet other employee needs, which, in turn, can increase value congruence and job satisfaction and reduce turnover intentions. This study finds support for four internal, organizational resources, including human capital investments, goal and role clarity, and the level of hierarchical authority within the organizations. In each case, organizations may take steps to alter the fundamental nature of these resources. For instance, organizations can tailor their human capital investments to meet the specific wants and needs of employees. Alternatively, organizations can also take steps to clarify goals and individual roles. In either case, these actions may lead to increases in complementary sources of congruence.

Because this study provides insight into factors that shape employee value congruence, it is also possible to examine and compare the varying influences of intrinsic and extrinsic motivators across this sample. Interestingly, results suggest extrinsic motivators may play a larger role in shaping value congruence than intrinsic factors like public service motivation. However, failing to account for both intrinsic, supplementary sources of congruence concomitantly with extrinsic, complementary sources of congruence would present an incomplete picture of the relationship between value congruence, job satisfaction, and employee turnover intentions.

Contributions and Implications

This study offers three general contributions to public administration scholarship and practice. First, it supplements the growing body of literature on public service motivation by introducing a broader perspective of the mechanisms through which public service motivation and value congruence influence employee

attitudes. Second, it also adds to knowledge on organizational performance by clarifying how various employee motivators shape elements of individual performance. Finally, this research answers calls to develop complementary and testable middle-range theories in public administration and management, paying considerable attention to the conceptual and theoretical development and refinement of the value congruence concept as it applies to the public sector (Merton, 1968; Pandey & Wright, 2006; Frederickson & Smith, 2003).

Practically, findings from this study suggest practitioners and organizational leaders cannot overlook the interests of their employees. Employees who believe their values are incongruent with those of their organization are less likely to be satisfied in their positions and more likely to express a desire to leave their organization. This suggests organizations must be careful to hire employees who fit well with organizational interests. Once employed, organizational leaders must provide opportunities for workers to fulfill their unique values and interests in ways that align with organizational interests. While organizations may not be able to provide for every value and interest held by employees, they can leverage internal resources to meet other salient needs held by employees. Doing so may increase overall value congruence and job satisfaction, offsetting turnover intentions.

Recommendations for Future Research

Based on the findings of this study, several recommendations for future research are offered. First, some effort should be made to validate the results of this study among other samples and populations. It would be useful to examine whether

employees 1) at other organizational levels within the NASP-IV cities, 2) in other, smaller cities, and 3) across other levels of government respond similarly or differently to the proposed theoretical model. Validating the model among other samples and populations may result in differences, for instance, on the relationship between employee reward satisfaction, value congruence, and job satisfaction.

Second, while the theoretical model tested in this study has found evidence of a broad range of factors affecting value congruence, it is likely many other individual interests and organizational characteristics also shape, or are mediated by, value congruence. For instance, organizational culture and leadership styles may influence value congruence. Value congruence is likely to affect other employee attitudes and behaviors not examined here, including, for example, organizational commitment. Future studies should consider a wider range of factors plausibly associated with the value congruence concept.

Third, future research should attempt to link the findings from this study to other, commonly used or more “objective” measures. For instance, some effort should be made to link perceptual measures on human capital value to actual human capital plans. It would also be helpful to cross-validate findings with other measures on organizational hierarchy and goal ambiguity, including, for example, Chun and Rainey’s (2005) measures and dimensions of goal ambiguity.

Finally, because value congruence is likely to be highly individualized, future public service motivation value congruence studies would be deeply benefited by taking steps toward triangulating findings across studies. It would also be helpful to

employ other research methodologies that may aid in encapsulating and categorizing factors influencing value congruence. For instance, researchers may consider conducting qualitative interviews to clarify factors affecting value congruence. Despite these recommendations, results clearly suggest the theoretical model tested in this study adds substantial value to public service motivation studies and public management scholarship. Future studies will only enhance our understanding of the value congruence concept and individual performance.

Project Summary

This project has reviewed and built upon theoretical developments in public service motivation scholarship. It argues recent efforts to incorporate the value congruence concept in public administration theory are both warranted and much needed. However, these initial efforts have applied a rather narrow view of value congruence—largely ignoring the ability of organizations to use internal resources to generate congruence. Based on this shortcoming, an expanded public service motivation value congruence model incorporating public service motivation, employee reward satisfaction, human capital investments, goal and role ambiguity, hierarchical authority, value congruence, job satisfaction, and employee turnover intentions is proposed.

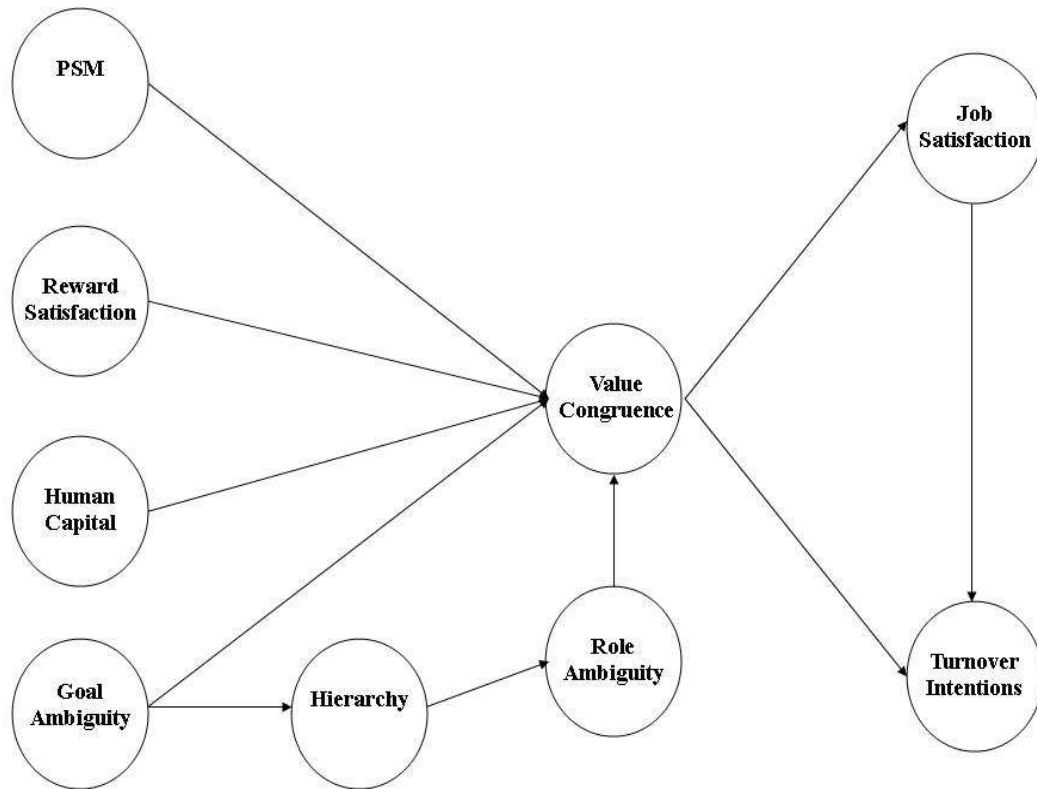
To test the veracity of the proposed theoretical model, data from Phase IV of the National Administrative Studies Project and structural equation modeling are used to examine several research questions and hypotheses. Results confirm the significance of the value congruence concept generally, and suggest, more

specifically, value congruence mediates the relationships between public service motivation, human capital investments, goal and role ambiguity, and organizational hierarchy on employee job satisfaction. Higher levels of job satisfaction are associated with diminished employee turnover intentions. Interestingly, employee reward satisfaction had no effect on value congruence, but directly influenced turnover intentions. Results also suggest certain organizational positions and socio-demographic factors repeatedly influence study findings.

On whole, the study finds significant support for the proposed theoretical model. Several avenues for future research are recommended, including expanding the model to incorporate other factors, testing the model in other samples and populations, relying on other measures to cross-validate findings, and employing other research methodologies to triangulate and develop the value congruence concept. However, results suggest the theoretical model examined adds substantial value to public service motivation studies and public management scholarship.

Figures

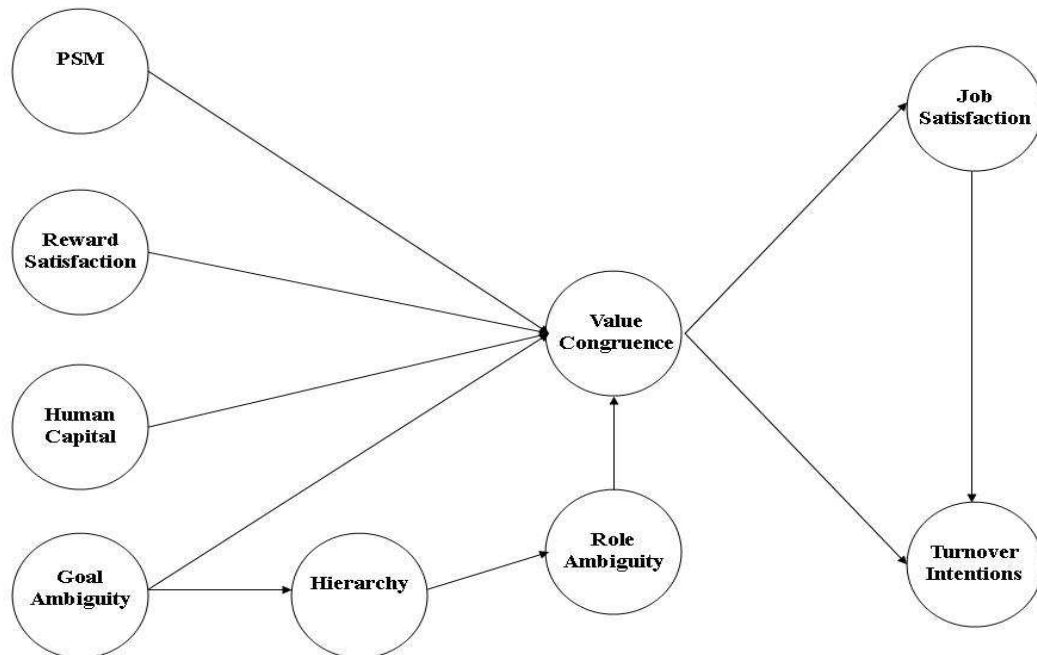
Figure 2.1. Proposed Theoretical Model.



Controls: Education, Age, Sex, Race and Ethnicity, and Organizational Position

Figure 3.1. Alternative Value Congruence Models.

Panel A. Primary Model.



Panel B. Alternative, Secondary Model.

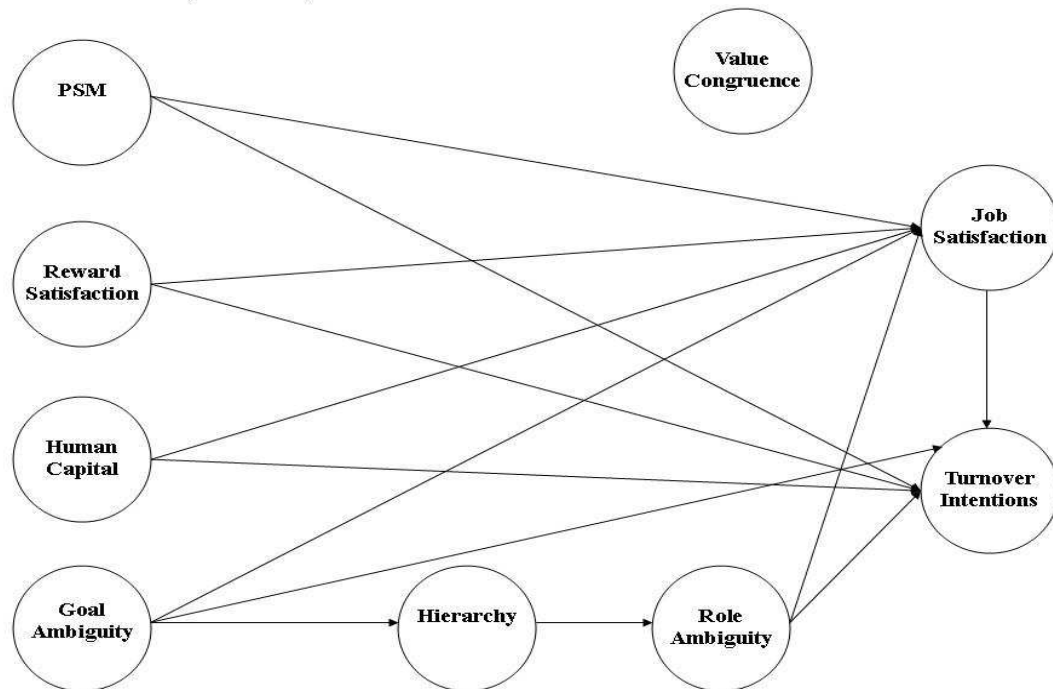
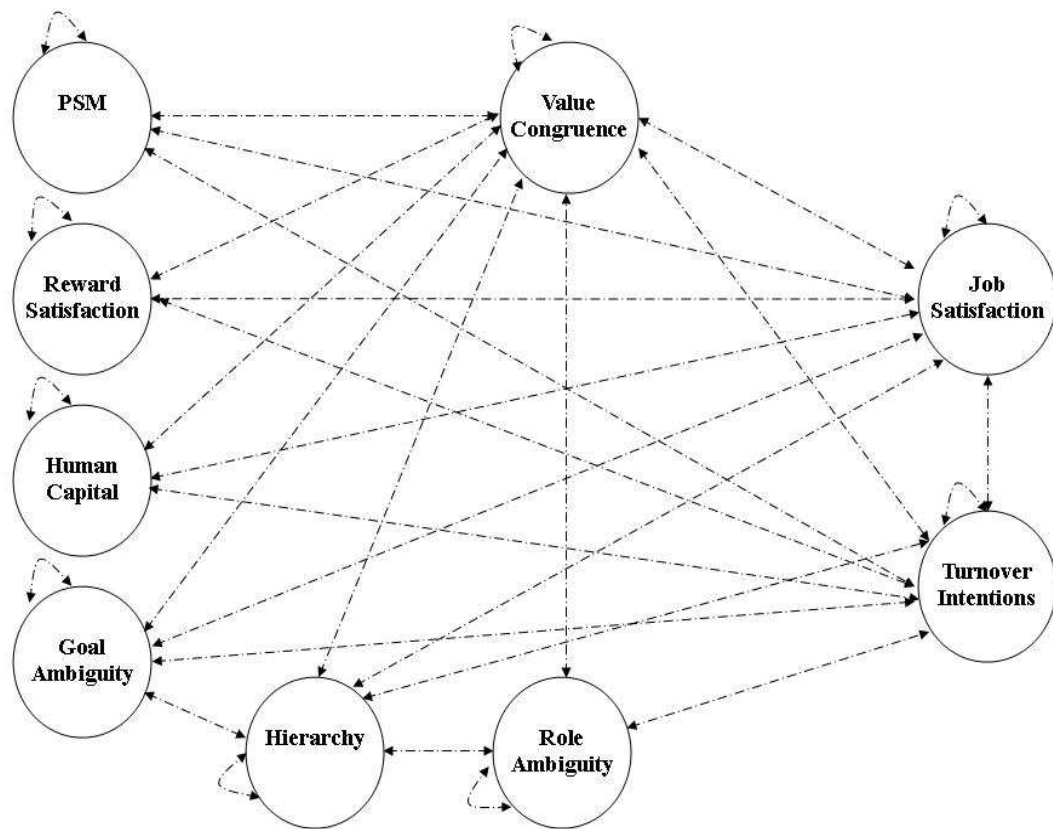
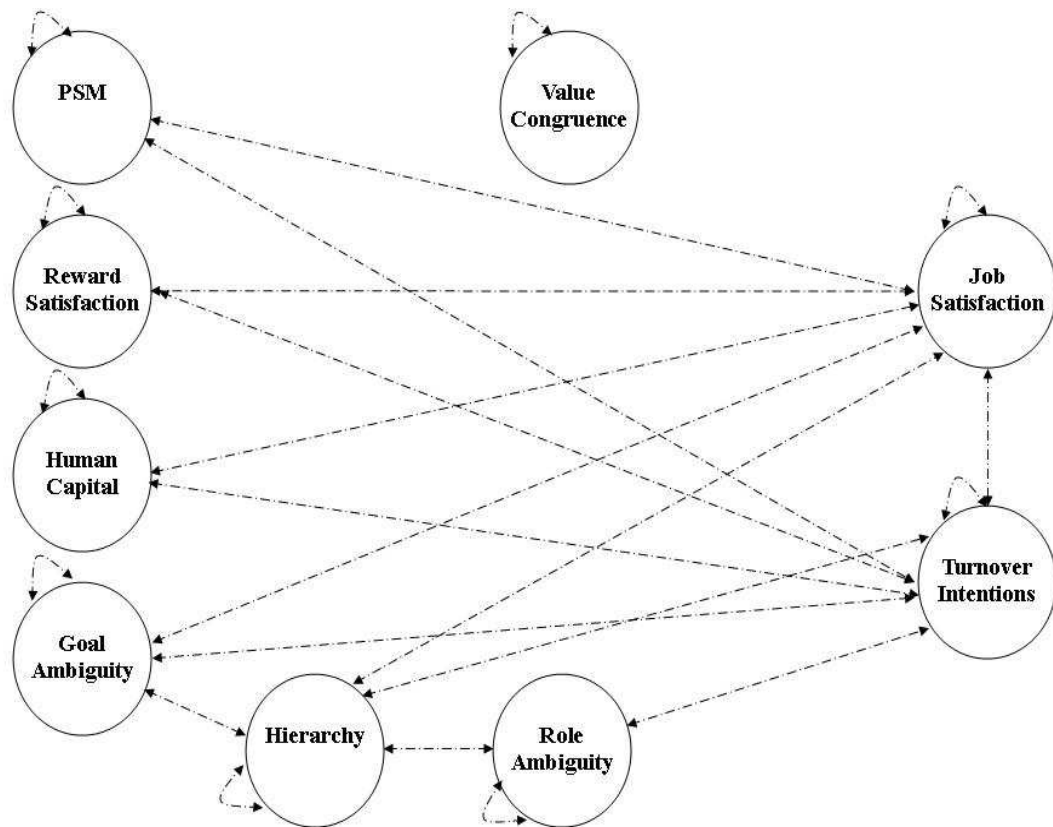


Figure 4.1. Primary Measurement Model.



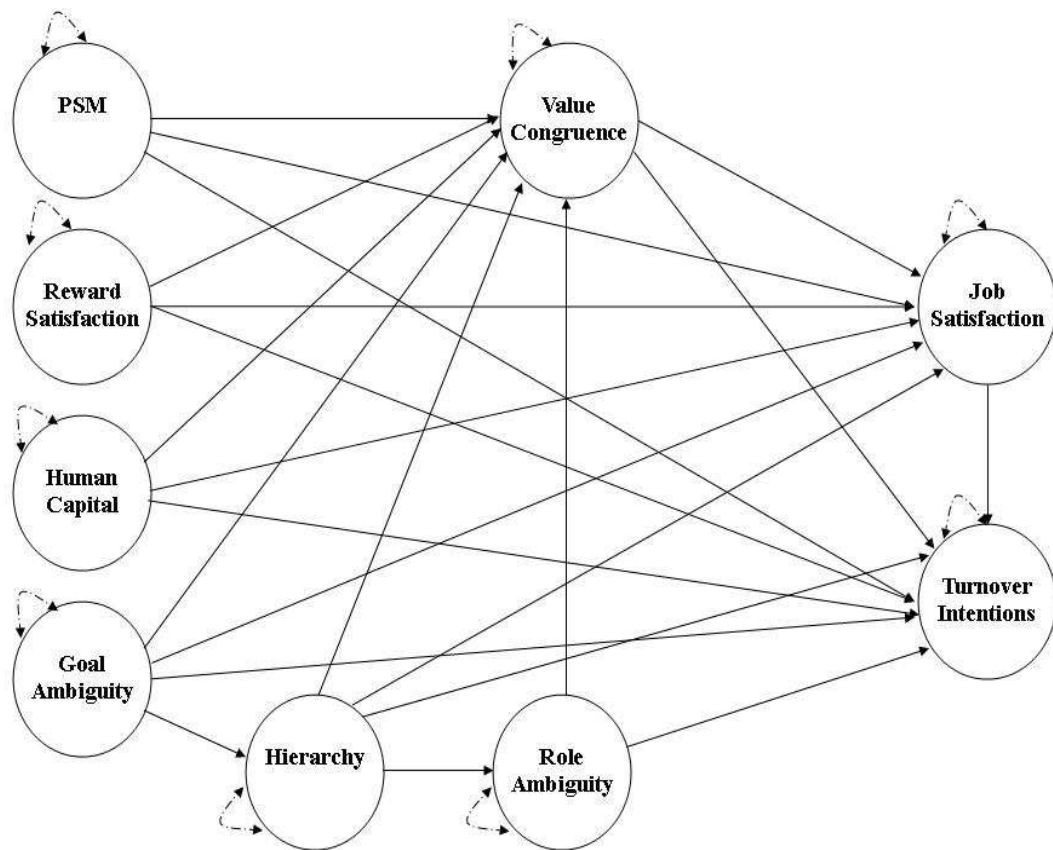
Controls: Education, Age, Sex, Race and Ethnicity, and Organizational Position

Figure 4.2. Alternative, Secondary Measurement Model.



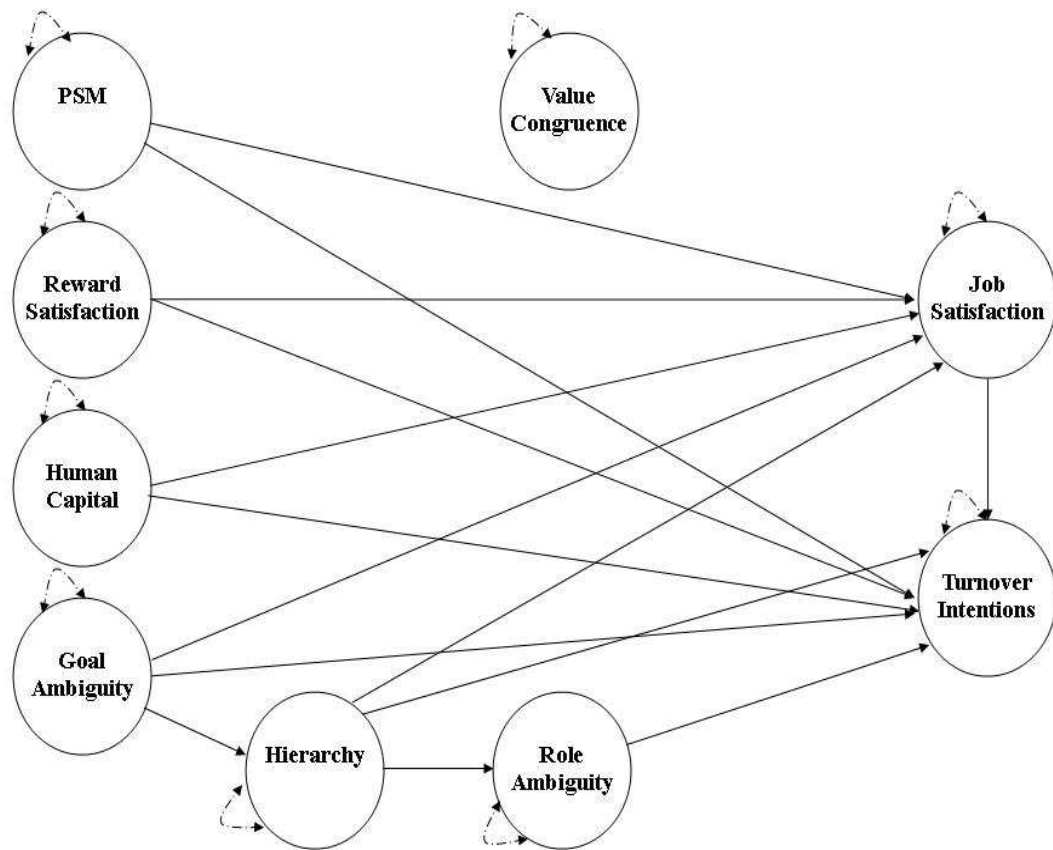
Controls: Education, Age, Sex, Race and Ethnicity, and Organizational Position

Figure 4.3. Primary Structural Model.



Controls: Education, Age, Sex, Race and Ethnicity, and Organizational Position

Figure 4.4. Alternative, Secondary Structural Model.



Controls: Education, Age, Sex, Race and Ethnicity, and Organizational Position

Tables

Table 3.1. Sample Characteristics (n = 1,538).

	Percent
Gender	
Female	29.4
Male	70.6
Education	
Some College	2.9
Bachelors	32.5
Masters in Public Affairs (MPA, MPP)	37.2
Other Graduate Degree	27.4
Race	
Hispanic Origin	4.1
Black or African American	6.7
White	85.9
Asian	2.3
Salary	
Less than \$50,000	1.4
\$50,000 to \$75,000	6.9
\$75,000 to \$100,000	23.5
\$100,000 to \$150,000	50.2
\$150,000 or more	18.1
Functional Specialization	
City Manager /CAO	14.0
Deputy or Assistant City Manager	14.6
Finance/Budgeting	12.3
Public Works	11.6
Personnel/HR	10.9
Economic Development	7.7
Parks & Recreation	13.7
Planning	10.9
Community Development	4.3

Table 4.1. Descriptive Statistics and Intercorrelations.

	Mean	S.D.	Scale Range	Correlations								
				1	2	3	4	5	6	7	8	9
1. Turnover Intentions	15.36	6.47	4 - 34	1.00								
2. Job Satisfaction	9.27	1.09	2 - 10	-0.32	1.00							
3. Value Congruence	13.92	1.54	3 - 15	-0.24	0.60	1.00						
4. Role Ambiguity	5.59	2.51	3 - 15	0.29	-0.58	-0.53	1.00					
5. Hierarchy	4.68	2.34	0 - 10	0.13	-0.16	-0.16	0.23	1.00				
6. Goal Ambiguity	7.09	2.76	3 - 15	0.19	-0.35	-0.46	0.46	0.17	1.00			
7. Human Capital Value	16.37	2.57	6 - 21	-0.18	0.37	0.41	-0.39	-0.11	-0.47	1.00		
8. Reward Satisfaction	9.65	2.97	3 - 15	-0.24	0.24	0.23	-0.31	-0.09	-0.30	0.27	1.00	
9. Public Service Motivation	25.47	3.56	8 - 30	-0.06*	0.22	0.29	-0.19	-0.06*	-0.23	0.23	-0.13	1.00

n = 1538

*p-value > 0.01

All other correlations: p-value < 0.000

Table 4.2. Primary Model. Betas.

Indicator	Beta	S.E.	z-score	p-value
<i>Public Service Motivation</i>				
Public Service Motivation & Value Congruence	0.132	0.026	5.142	p < 0.05
Public Service Motivation & Job Satisfaction	-0.024	0.027	-0.876	p > 0.05
Public Service Motivation & Turnover Intention	0.017	0.024	0.700	p > 0.05
<i>Reward Satisfaction</i>				
Reward Satisfaction & Value Congruence	0.014	0.037	0.371	p > 0.05
Reward Satisfaction & Job Satisfaction	0.073	0.038	1.911	p > 0.05
Reward Satisfaction & Turnover Intention	-0.194	0.034	-5.710	p < 0.05
<i>Human Capital Value</i>				
Human Capital & Value Congruence	0.234	0.029	8.197	p < 0.05
Human Capital & Job Satisfaction	0.122	0.032	3.828	p < 0.05
Human Capital & Turnover Intention	0.022	0.028	0.773	p > 0.05
<i>Goal Ambiguity</i>				
Goal Ambiguity & Hierarchy	0.241	0.036	6.699	p < 0.05
Goal Ambiguity & Role Ambiguity	0.533	0.029	18.439	p < 0.05
Goal Ambiguity & Value Congruence	-0.231	0.030	-7.808	p < 0.05
Goal Ambiguity & Job Satisfaction	0.130	0.033	3.949	p < 0.05
Goal Ambiguity & Turnover Intention	0.018	0.030	0.610	p > 0.05
<i>Hierarchy</i>				
Hierarchy & Role Ambiguity	0.126	0.020	6.305	p < 0.05
Hierarchy & Value Congruence	-0.011	0.017	-0.623	p > 0.05
Hierarchy & Job Satisfaction	-0.009	0.018	-0.479	p > 0.05
Hierarchy & Turnover Intention	0.029	0.015	1.906	p > 0.05
<i>Role Ambiguity</i>				
Role Ambiguity & Value Congruence	-0.340	0.028	-12.117	p < 0.05
Role Ambiguity & Job Satisfaction	-0.358	0.034	-10.646	p < 0.05
Role Ambiguity & Turnover Intention	0.053	0.036	1.475	p > 0.05
<i>Value Congruence</i>				
Value Congruence & Job Satisfaction	0.603	0.047	12.741	p < 0.05
Value Congruence & Turnover Intention	0.096	0.058	1.650	p > 0.05
<i>Job Satisfaction</i>				
Job Satisfaction & Turnover Intention	-0.260	0.061	-4.299	p < 0.05

Table 4.3. Secondary Model. Betas.

Indicator	Beta	S.E.	z-score	p-value
<i>Public Service Motivation</i>				
Public Service Motivation & Job Satisfaction	0.056	0.028	1.970	p < 0.05
Public Service Motivation & Turnover Intention	0.026	0.023	1.144	p > 0.05
<i>Reward Satisfaction</i>				
Reward Satisfaction & Job Satisfaction	0.082	0.041	2.032	p < 0.05
Reward Satisfaction & Turnover Intention	-0.197	0.034	-5.858	p < 0.05
<i>Human Capital Value</i>				
Human Capital & Job Satisfaction	0.263	0.031	8.394	p < 0.05
Human Capital & Turnover Intention	0.030	0.028	1.062	p > 0.05
<i>Goal Ambiguity</i>				
Goal Ambiguity & Hierarchy	0.241	0.036	6.700	p < 0.05
Goal Ambiguity & Role Ambiguity	0.532	0.029	18.415	p < 0.05
Goal Ambiguity & Job Satisfaction	-0.010	0.032	-0.323	p > 0.05
Goal Ambiguity & Turnover Intention	-0.003	0.026	-0.130	p > 0.05
<i>Hierarchy</i>				
Hierarchy & Role Ambiguity	0.126	0.020	6.310	p < 0.05
Hierarchy & Job Satisfaction	-0.015	0.019	-0.798	p > 0.05
Hierarchy & Turnover Intention	0.029	0.015	1.905	p > 0.05
<i>Role Ambiguity</i>				
Role Ambiguity & Job Satisfaction	-0.562	0.031	-18.140	p < 0.05
Role Ambiguity & Turnover Intention	0.051	0.035	1.440	p > 0.05
<i>Job Satisfaction</i>				
Job Satisfaction & Turnover Intention	-0.205	0.041	-4.997	p < 0.05

Table 4.4. Chi-Square Difference Test.

	Statistic	Degrees of Freedom	Difference Test p-value
<i>Model Comparison</i>			0.00000
Primary Model	3461.41	615	
Secondary Model	4509.24	623	

Table 4.5. Primary Model. Mediation Tests.

Path	Unstandardized Estimate	S.E.	z-score	p-value
<i>Public Service Motivation</i>				
Public Service Motivation to Value Congruence	0.132	0.026	5.142	p < 0.05
Public Service Motivation to Job Satisfaction	0.056	0.028	1.983	p < 0.05
Public Service Motivation to Turnover Intention	0.015	0.023	0.648	p > 0.05
<i>Reward Satisfaction</i>				
Reward Satisfaction to Value Congruence	0.014	0.037	0.371	p > 0.05
Reward Satisfaction to Job Satisfaction	0.081	0.041	2.011	p < 0.05
Reward Satisfaction to Turnover Intention	-0.214	0.034	-6.343	p < 0.05
<i>Human Capital</i>				
Human Capital to Value Congruence	0.234	0.029	8.197	p < 0.05
Human Capital to Job Satisfaction	0.263	0.031	8.412	p < 0.05
Human Capital to Turnover Intention	-0.024	0.025	-0.947	p > 0.05
<i>Goal Ambiguity</i>				
Goal Ambiguity to Hierarchy	0.241	0.036	6.699	p < 0.05
Goal Ambiguity to Role Ambiguity	0.563	0.029	19.550	p < 0.05
Goal Ambiguity to Value Congruence	-0.425	0.025	-16.697	p < 0.05
Goal Ambiguity to Job Satisfaction	-0.330	0.029	-11.330	p < 0.05
Goal Ambiguity to Turnover Intention	0.100	0.022	4.644	p < 0.05
<i>Hierarchy</i>				
Hierarchy to Role Ambiguity	0.126	0.020	6.305	p < 0.05
Hierarchy to Value Congruence	-0.053	0.018	-2.988	p < 0.05
Hierarchy to Job Satisfaction	-0.086	0.021	-4.164	p < 0.05
Hierarchy to Turnover Intention	0.053	0.015	3.462	p < 0.05
<i>Role Ambiguity</i>				
Role Ambiguity to Value Congruence	-0.340	0.028	-12.117	p < 0.05
Role Ambiguity to Job Satisfaction	-0.563	0.031	-18.152	p < 0.05
Role Ambiguity to Turnover Intention	0.166	0.025	6.649	p < 0.05
<i>Value Congruence</i>				
Value Congruence to Job Satisfaction	0.603	0.047	12.741	p < 0.05
Value Congruence to Turnover Intention	-0.060	0.039	-1.537	p > 0.05
<i>Job Satisfaction</i>				
Job Satisfaction to Turnover Intention	-0.260	0.061	-4.299	p < 0.05

Table 4.6. Primary Model. Covariate Effects.

<i>Indicator</i>	<i>Gamma</i>	<i>S.E.</i>	<i>z-score</i>	<i>p-value</i>
<i>Public Service Motivation</i>				
Deputy/Assistant City Mangers	-0.002	0.025	-0.066	p > 0.05
Finance/Budget Directors	-0.131	0.025	-5.328	p < 0.05
Public Works Directors	-0.037	0.024	-1.558	p > 0.05
HR/Personnel Directors	-0.075	0.025	-3.001	p < 0.05
Economic Dev. Directors	-0.066	0.023	-2.869	p < 0.05
Parks & Rec. Directors	-0.002	0.026	-0.079	p > 0.05
Planning Directors	-0.031	0.024	-1.272	p > 0.05
Community Dev. Directors	-0.018	0.021	-0.858	p > 0.05
Sex	0.024	0.020	1.246	p > 0.05
Education Level	-0.027	0.019	-1.406	p > 0.05
Race	-0.072	0.019	-3.868	p < 0.05
Salary	0.027	0.021	1.293	p > 0.05
Age	0.096	0.019	4.919	p < 0.05
<i>Reward Satisfaction</i>				
Deputy/Assistant City Mangers	0.036	0.025	1.451	p > 0.05
Finance/Budget Directors	-0.045	0.025	-1.817	p > 0.05
Public Works Directors	-0.039	0.024	-1.611	p > 0.05
HR/Personnel Directors	0.032	0.025	1.287	p > 0.05
Economic Dev. Directors	-0.057	0.023	-2.477	p < 0.05
Parks & Rec. Directors	-0.016	0.026	-0.609	p > 0.05
Planning Directors	-0.060	0.024	-2.443	p < 0.05
Community Dev. Directors	-0.040	0.021	-1.869	p > 0.05
Sex	-0.019	0.020	-0.958	p > 0.05
Education Level	-0.071	0.019	-3.747	p < 0.05
Race	0.012	0.019	0.613	p > 0.05
Salary	0.191	0.021	9.020	p < 0.05
Age	-0.064	0.020	-3.279	p < 0.05

Table 4.6. Primary Model. Covariate Effects. Continued.

Indicator	Gamma	S.E.	z-score	p-value
<i>Human Capital Value</i>				
Deputy/Assistant City Mangers	-0.048	0.023	-2.029	p < 0.05
Finance/Budget Directors	-0.096	0.023	-4.089	p < 0.05
Public Works Directors	-0.101	0.023	-4.419	p < 0.05
HR/Personnel Directors	-0.058	0.024	-2.433	p < 0.05
Economic Dev. Directors	-0.032	0.022	-1.466	p > 0.05
Parks & Rec. Directors	-0.042	0.024	-1.714	p > 0.05
Planning Directors	-0.020	0.023	-0.875	p > 0.05
Community Dev. Directors	-0.015	0.020	-0.719	p > 0.05
Sex	0.046	0.019	2.479	p < 0.05
Education Level	-0.025	0.018	-1.376	p > 0.05
Race	-0.005	0.018	-0.278	p > 0.05
Salary	0.046	0.020	2.291	p < 0.05
Age	0.102	0.019	5.511	p < 0.05
<i>Goal Ambiguity</i>				
Deputy/Assistant City Mangers	0.105	0.028	3.699	p < 0.05
Finance/Budget Directors	0.141	0.028	4.985	p < 0.05
Public Works Directors	0.074	0.028	2.671	p < 0.05
HR/Personnel Directors	0.123	0.029	4.256	p < 0.05
Economic Dev. Directors	0.062	0.027	2.339	p < 0.05
Parks & Rec. Directors	0.073	0.030	2.460	p < 0.05
Planning Directors	0.076	0.028	2.717	p < 0.05
Community Dev. Directors	0.023	0.025	0.921	p > 0.05
Sex	-0.044	0.023	-1.964	p < 0.05
Education Level	0.049	0.022	2.228	p < 0.05
Race	0.038	0.021	1.786	p > 0.05
Salary	-0.094	0.024	-3.859	p < 0.05
Age	-0.070	0.022	-3.133	p < 0.05

Table 4.6. Primary Model. Covariate Effects. Continued.

Indicator	Gamma	S.E.	z-score	p-value
<i>Hierarchy</i>				
Deputy/Assistant City Mangers	-0.051	0.034	-1.510	p > 0.05
Finance/Budget Directors	-0.081	0.034	-2.392	p < 0.05
Public Works Directors	-0.031	0.033	-0.944	p > 0.05
HR/Personnel Directors	-0.009	0.034	-0.255	p > 0.05
Economic Dev. Directors	-0.020	0.031	-0.640	p > 0.05
Parks & Rec. Directors	-0.014	0.035	-0.396	p > 0.05
Planning Directors	-0.023	0.033	-0.708	p > 0.05
Community Dev. Directors	-0.026	0.029	-0.885	p > 0.05
Sex	0.070	0.027	2.609	p < 0.05
Education Level	-0.002	0.026	-0.068	p > 0.05
Race	-0.020	0.025	-0.808	p > 0.05
Salary	0.009	0.029	0.306	p > 0.05
Age	-0.031	0.027	-1.182	p > 0.05
<i>Role Ambiguity</i>				
Deputy/Assistant City Mangers	0.022	0.026	0.857	p > 0.05
Finance/Budget Directors	-0.067	0.026	-2.562	p < 0.05
Public Works Directors	-0.015	0.025	-0.594	p > 0.05
HR/Personnel Directors	-0.052	0.027	-1.931	p > 0.05
Economic Dev. Directors	-0.005	0.024	-0.221	p > 0.05
Parks & Rec. Directors	-0.057	0.027	-2.082	p < 0.05
Planning Directors	-0.056	0.026	-2.186	p < 0.05
Community Dev. Directors	0.005	0.022	0.215	p > 0.05
Sex	-0.017	0.021	-0.831	p > 0.05
Education Level	0.026	0.020	1.310	p > 0.05
Race	0.012	0.020	0.584	p > 0.05
Salary	-0.050	0.022	-2.244	p < 0.05
Age	-0.010	0.021	-0.503	p > 0.05

Table 4.6. Primary Model. Covariate Effects. Continued.

Indicator	Gamma	S.E.	z-score	p-value
<i>Value Congruence</i>				
Deputy/Assistant City Mangers	0.011	0.022	0.487	p > 0.05
Finance/Budget Directors	-0.067	0.023	-2.957	p < 0.05
Public Works Directors	-0.003	0.022	-0.133	p > 0.05
HR/Personnel Directors	-0.048	0.023	-2.119	p < 0.05
Economic Dev. Directors	-0.014	0.021	-0.675	p > 0.05
Parks & Rec. Directors	-0.017	0.023	-0.741	p > 0.05
Planning Directors	-0.038	0.022	-1.728	p > 0.05
Community Dev. Directors	-0.023	0.019	-1.217	p > 0.05
Sex	0.009	0.018	0.489	p > 0.05
Education Level	0.011	0.017	0.634	p > 0.05
Race	0.021	0.017	1.229	p > 0.05
Salary	-0.020	0.020	-0.966	p > 0.05
Age	0.010	0.018	0.535	p > 0.05
<i>Job Satisfaction</i>				
Deputy/Assistant City Mangers	-0.022	0.023	-0.955	p > 0.05
Finance/Budget Directors	-0.011	0.024	-0.456	p > 0.05
Public Works Directors	-0.003	0.022	-0.121	p > 0.05
HR/Personnel Directors	-0.001	0.024	-0.058	p > 0.05
Economic Dev. Directors	0.005	0.022	0.231	p > 0.05
Parks & Rec. Directors	0.032	0.024	1.325	p > 0.05
Planning Directors	-0.013	0.023	-0.562	p > 0.05
Community Dev. Directors	0.012	0.020	0.602	p > 0.05
Sex	0.004	0.018	0.226	p > 0.05
Education Level	-0.005	0.018	-0.303	p > 0.05
Race	-0.034	0.017	-1.958	p > 0.05
Salary	0.018	0.021	0.875	p > 0.05
Age	-0.007	0.019	-0.380	p > 0.05

Table 4.6. Primary Model. Covariate Effects. Continued.

Indicator	Gamma	S.E.	z-score	p-value
<i>Turnover Intentions</i>				
Deputy/Assistant City Mangers	-0.017	0.020	-0.867	p > 0.05
Finance/Budget Directors	-0.032	0.021	-1.570	p > 0.05
Public Works Directors	-0.006	0.019	-0.317	p > 0.05
HR/Personnel Directors	-0.005	0.021	-0.229	p > 0.05
Economic Dev. Directors	0.011	0.019	0.566	p > 0.05
Parks & Rec. Directors	-0.004	0.021	-0.178	p > 0.05
Planning Directors	-0.020	0.020	-1.002	p > 0.05
Community Dev. Directors	0.007	0.017	0.401	p > 0.05
Sex	-0.055	0.016	-3.467	p < 0.05
Education Level	0.033	0.015	2.135	p < 0.05
Race	-0.024	0.015	-1.559	p > 0.05
Salary	0.003	0.018	0.158	p > 0.05
Age	-0.131	0.016	-8.100	p < 0.05

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Appendix A

Secondary Model. Covariate Effects.

<i>Indicator</i>	<i>Gamma</i>	<i>S.E.</i>	<i>z-score</i>	<i>p-value</i>
<i>Public Service Motivation</i>				
Deputy/Assistant City Mangers	-0.002	0.025	-0.068	p > 0.05
Finance/Budget Directors	-0.131	0.025	-5.325	p < 0.05
Public Works Directors	-0.037	0.024	-1.557	p > 0.05
HR/Personnel Directors	-0.075	0.025	-3.002	p < 0.05
Economic Dev. Directors	-0.066	0.023	-2.867	p < 0.05
Parks & Rec. Directors	-0.002	0.026	-0.079	p > 0.05
Planning Directors	-0.031	0.024	-1.272	p > 0.05
Community Dev. Directors	-0.018	0.021	-0.861	p > 0.05
Sex	0.024	0.020	1.240	p > 0.05
Education Level	-0.027	0.019	-1.403	p > 0.05
Race	-0.072	0.019	-3.871	p < 0.05
Salary	0.027	0.021	1.287	p > 0.05
Age	0.095	0.019	4.912	p < 0.05
<i>Reward Satisfaction</i>				
Deputy/Assistant City Mangers	0.036	0.025	1.450	p > 0.05
Finance/Budget Directors	-0.045	0.025	-1.818	p > 0.05
Public Works Directors	-0.039	0.024	-1.612	p > 0.05
HR/Personnel Directors	0.032	0.025	1.286	p > 0.05
Economic Dev. Directors	-0.057	0.023	-2.477	p < 0.05
Parks & Rec. Directors	-0.016	0.026	-0.609	p > 0.05
Planning Directors	-0.060	0.024	-2.444	p < 0.05
Community Dev. Directors	-0.040	0.021	-1.869	p > 0.05
Sex	-0.019	0.020	-0.958	p > 0.05
Education Level	-0.071	0.019	-3.746	p < 0.05
Race	0.011	0.019	0.611	p > 0.05
Salary	0.191	0.021	9.021	p < 0.05
Age	-0.064	0.020	-3.278	p < 0.05

Secondary Model. Covariate Effects. Continued.

<i>Indicator</i>	<i>Gamma</i>	<i>S.E.</i>	<i>z-score</i>	<i>p-value</i>
<i>Human Capital Value</i>				
Deputy/Assistant City Mangers	-0.047	0.023	-2.023	p < 0.05
Finance/Budget Directors	-0.096	0.023	-4.082	p < 0.05
Public Works Directors	-0.101	0.023	-4.421	p < 0.05
HR/Personnel Directors	-0.058	0.024	-2.434	p < 0.05
Economic Dev. Directors	-0.032	0.022	-1.469	p > 0.05
Parks & Rec. Directors	-0.042	0.024	-1.724	p > 0.05
Planning Directors	-0.020	0.023	-0.869	p > 0.05
Community Dev. Directors	-0.015	0.020	-0.730	p > 0.05
Sex	0.046	0.019	2.463	p < 0.05
Education Level	-0.025	0.018	-1.378	p > 0.05
Race	-0.005	0.018	-0.282	p > 0.05
Salary	0.046	0.020	2.288	p < 0.05
Age	0.102	0.019	5.515	p < 0.05
<i>Goal Ambiguity</i>				
Deputy/Assistant City Mangers	0.105	0.028	3.697	p < 0.05
Finance/Budget Directors	0.141	0.028	4.979	p < 0.05
Public Works Directors	0.074	0.028	2.667	p < 0.05
HR/Personnel Directors	0.123	0.029	4.259	p < 0.05
Economic Dev. Directors	0.062	0.027	2.334	p < 0.05
Parks & Rec. Directors	0.073	0.030	2.455	p < 0.05
Planning Directors	0.076	0.028	2.710	p < 0.05
Community Dev. Directors	0.023	0.025	0.920	p > 0.05
Sex	-0.044	0.023	-1.954	p > 0.05
Education Level	0.049	0.022	2.225	p < 0.05
Race	0.038	0.021	1.787	p > 0.05
Salary	-0.094	0.024	-3.853	p < 0.05
Age	-0.071	0.022	3.146	p < 0.05

Secondary Model. Covariate Effects. Continued.

<i>Indicator</i>	<i>Gamma</i>	<i>S.E.</i>	<i>z-score</i>	<i>p-value</i>
<i>Hierarchy</i>				
Deputy/Assistant City Mangers	-0.051	0.034	-1.510	p > 0.05
Finance/Budget Directors	-0.081	0.034	-2.391	p < 0.05
Public Works Directors	-0.031	0.033	-0.944	p > 0.05
HR/Personnel Directors	-0.009	0.034	-0.256	p > 0.05
Economic Dev. Directors	-0.020	0.031	-0.640	p > 0.05
Parks & Rec. Directors	-0.014	0.035	-0.395	p > 0.05
Planning Directors	-0.023	0.033	-0.707	p > 0.05
Community Dev. Directors	-0.026	0.029	-0.885	p > 0.05
Sex	0.070	0.027	2.607	p < 0.05
Education Level	-0.002	0.026	-0.068	p > 0.05
Race	-0.020	0.025	-0.808	p > 0.05
Salary	0.009	0.029	0.305	p > 0.05
Age	-0.031	0.027	-1.179	p > 0.05
<i>Role Ambiguity</i>				
Deputy/Assistant City Mangers	0.022	0.026	0.846	p > 0.05
Finance/Budget Directors	-0.067	0.026	-2.566	p < 0.05
Public Works Directors	-0.015	0.025	-0.594	p > 0.05
HR/Personnel Directors	-0.052	0.027	-1.939	p > 0.05
Economic Dev. Directors	-0.005	0.024	-0.225	p > 0.05
Parks & Rec. Directors	-0.057	0.027	-2.084	p < 0.05
Planning Directors	-0.056	0.026	-2.185	p < 0.05
Community Dev. Directors	0.005	0.022	0.211	p > 0.05
Sex	-0.017	0.021	-0.834	p > 0.05
Education Level	0.026	0.020	1.314	p > 0.05
Race	0.011	0.020	0.574	p > 0.05
Salary	-0.050	0.022	-2.250	p < 0.05
Age	-0.010	0.021	-0.493	p > 0.05

Secondary Model. Covariate Effects. Continued.

<i>Indicator</i>	<i>Gamma</i>	<i>S.E.</i>	<i>z-score</i>	<i>p-value</i>
<i>Value Congruence</i>				
Deputy/Assistant City Mangers	-0.041	0.026	-1.551	p > 0.05
Finance/Budget Directors	-0.141	0.026	-5.350	p < 0.05
Public Works Directors	-0.052	0.026	-2.043	p < 0.05
HR/Personnel Directors	-0.096	0.027	-3.577	p < 0.05
Economic Dev. Directors	-0.052	0.025	-2.127	p < 0.05
Parks & Rec. Directors	-0.035	0.027	-1.276	p > 0.05
Planning Directors	-0.049	0.026	-1.873	p > 0.05
Community Dev. Directors	-0.033	0.023	-1.432	p > 0.05
Sex	0.041	0.021	1.942	p > 0.05
Education Level	-0.030	0.020	-1.494	p > 0.05
Race	-0.011	0.020	-0.561	p > 0.05
Salary	0.051	0.023	2.264	p < 0.05
Age	0.079	0.021	3.806	p < 0.05
<i>Job Satisfaction</i>				
Deputy/Assistant City Mangers	-0.016	0.024	-0.649	p > 0.05
Finance/Budget Directors	-0.052	0.025	-2.070	p < 0.05
Public Works Directors	-0.005	0.024	-0.197	p > 0.05
HR/Personnel Directors	-0.031	0.025	-1.233	p > 0.05
Economic Dev. Directors	-0.004	0.023	-0.165	p > 0.05
Parks & Rec. Directors	0.021	0.025	0.836	p > 0.05
Planning Directors	-0.036	0.024	-1.486	p > 0.05
Community Dev. Directors	-0.002	0.021	-0.105	p > 0.05
Sex	0.010	0.019	0.490	p > 0.05
Education Level	0.001	0.019	0.060	p > 0.05
Race	-0.022	0.018	-1.184	p > 0.05
Salary	0.006	0.022	0.288	p > 0.05
Age	3.806	0.020	-0.054	p > 0.05

Secondary Model. Covariate Effects. Continued.

<i>Indicator</i>	<i>Gamma</i>	<i>S.E.</i>	<i>z-score</i>	<i>p-value</i>
<i>Turnover Intentions</i>				
Deputy/Assistant City Mangers	-0.015	0.020	-0.781	p > 0.05
Finance/Budget Directors	-0.036	0.020	-1.766	p > 0.05
Public Works Directors	-0.006	0.019	-0.324	p > 0.05
HR/Personnel Directors	-0.008	0.020	-0.381	p > 0.05
Economic Dev. Directors	0.009	0.019	0.506	p > 0.05
Parks & Rec. Directors	-0.007	0.021	-0.320	p > 0.05
Planning Directors	-0.021	0.020	-1.097	p > 0.05
Community Dev. Directors	0.005	0.017	0.279	p > 0.05
Sex	-0.055	0.016	-3.471	p < 0.05
Education Level	0.034	0.015	2.216	p < 0.05
Race	-0.021	0.015	-1.375	p > 0.05
Salary	0.001	0.018	0.034	p > 0.05
Age	-0.130	0.016	-8.098	p < 0.05